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ABSTRACT

Twenty-one American educational researchers and policy makers present their impressions of education in Japan. Compiled as a result of a two and a half week Educational Staff Seminar tour of Japan in 1972, the articles describe public and private schools, factories, museums, educational television studios, monasteries, shrines, and the Japanese Parliament. As background for the study tour, the participants talked with Japanese scholars, politicians, labor leaders, students, government officials, businessmen, and Zen Buddhist priests. The first article discusses the social and political life and identifies the difficulties of perceiving Japan from a Western perspective. Subsequent articles discuss the role of the Japanese government in education, early childhood education, education of the handicapped, educational research, science and vocational education, cultural education, social welfare services, the status of women, and educational television. Appendices include a directory of the staff of the Japan Center for International Exchange, a roster of participants of the study tour, and a listing of Educational Staff Seminar Programs in 1973. (Author/DB)

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IMPRESSIONS OF EDUCATION IN JAPAN

A Report of the Educational Staff Seminar Study Tour

December 3 - 20, 1973

Edited by

ELLEN HOFFMAN

SP 009 744

THE GEORGE WASHINGTON UNIVERSITY
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DEDICATED TO THE CHILDREN OF JAPAN

IMPRESSIONS OF EDUCATION IN JAPAN

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INTRODUCTION

by Ellen Hoffman

Our ESS group arrived in Japan at dusk, barely sighting the peak of Mt. Fuji as the plane descended to Tokyo International Airport. The enthusiastic, smiling staff of the Japan Center for International Exchange greeted us with signs and banners as we entered the main terminal. With several waiting colleagues, who had already arrived from Hong Kong, we alternately sped and crept in a bus along the highways into Tokyo.

Bleary-eyed and groggy from the long trans-Pacific trip, we mechanically performed the motions of checking into the Akasaka-Tokyu Hotel and assembled in a 14th floor lounge for beer, Cokes and a "briefing". Suddenly, the building began to sway in a smooth but very perceptible motion. Our Japanese hosts and hostesses were suddenly everywhere, one calling the weather bureau and others crying "earthquake, earthquake". We knew that we were really in Japan.

The next morning we plunged into the urban life of the world's largest city--by riding the subway at rush hour. We soon got over our initial surprise at seeing the neatly-uniformed, white-gloved "pushers" hired by the subway system to stuff the maximum possible number of people into each car.

In the course of the next 2½ weeks we saw Japan by subway, by bus, by "Bullet" train, by cable car, ferry boat and on foot. Most weekdays were spent in Tokyo, with weekend retreats from the smog and the crowds to the peaceful regions of Hakone (the resort area near Mt. Fuji) and Kyoto, the ancient capital. We experienced Japan in ways that a tourist seldom does--by talking with scholars, politicians, labor leaders, students, government officials, businessmen and Zen Buddhist priests. We visited public and private schools from the kindergarten to university level; a SONY factory; museums and educational television studios; the Diet and monasteries and shrines. *

The participants in the trip were a varied group. We were 12 women and 9 men; 8 from Capitol Hill posts; 10 government employees; and 3 from other jobs. Our interests and skills varied from vocational education to the educational potential of museums to the politics of education. Most of us followed the "official" ESS schedule most of the time. But inevitably, other priorities required members of the group to pursue their own, more specialized interests at certain times.

Most of us had not visited Japan and found that previous travel experience was by no means adequate preparation for a first confrontation with the Orient.

During my first few days in Tokyo I found it easy to pretend I was in New York. People on the street wear western clothes. The postwar office buildings freeways, hotels and department stores looked to me like those in New York. "Where is the <u>real</u> Japan?" we found ourselves asking each other in the early days of the trip.

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* Our complete itinerary follows the Introduction. Our gracious and competent hosts and guides of the Japan Center for International Exchange are listed in the Appendix.

"The real Japan" did begin to emerge as we visited temples, attended a tea ceremony, ate raw fish and drank sake while kneeling on the floor. But in a more subtle and ultimately more enduring way, we found "the real Japan" through our daily contacts with Japanese people. We developed a feeling for the importance of ceremony--of serving tea on all occasions and of making proper introductions and exchanging niceties; and the difficulty of moving beyond these rituals and the barriers of language to substantive communication. We learned the importance of "saving" or "losing face." We learned that the western facade of Japanese society conceals a traditional and esoteric culture which a "gaijin" (the Japanese word for 'foreigner') could never begin to understand in a short visit.

All of this education of ESS was not an entirely pleasant experience. Insights, as is so often the case, sometimes come only after painful misunderstandings and disagreements. Instead of being simply impartial observers of "the Japanese educational system," we became students of what seemed to us a fascinating, complex, both modern and traditional society.

It was a short but intense confrontation. Hopefully, the series of impressionistic writings compiled in this report will portray some of the many reactions of ESS'ers to the trip as well as the factual information we accumulated.

--The Editor

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FIELD TRIP: EDUCATION IN JAPAN
December 3-20, 1972

December 3, Sunday — Depart U.S.

December 4, Monday

17:00 — Arrive at Haneda International Airport. Depart by bus for Akasaka Tokyu Hotel, Tokyo.

19:00 — Reception by Japan Center for International Exchange staff and first briefing on itinerary.

December 5, Tuesday

8:30 — Depart hotel by subway for Kokuritsu Kyoiku Kaikan (National Education Hall).

9:00-12:00 — Seminar: "Role of Education in Social Development in Japan--An Historical Perspective"

Professor Shigeo Masui, Director
The Second Research Department
National Institute for Educational Research

14:30-17:30 — Tour of Tokyo by bus, e.g. Asakusa Shrine; Shinjuku; Olympic Stadium, etc.

18:00 — Group dinner at Chizan-so Gardens

December 6, Wednesday

8:30 — Depart hotel by subway for Kokuritsu Kyoiku Kaikan.

9:00-11:00 — Informal Discussion: "Japan and the Japanese--Social, Political, Economic Dimensions"

Dr. Kenneth Butler, Director
Inter-University Center for Japanese Language Studies

Tsutomu Kano, Editor, The Japan Interpreter, and Director, Center for Social Science Communication

Tadashi Yamamoto, Director
Japan Center for International Exchange

14:00-17:00	Visit National Institute for Educational Research Discussion with Dr. Masunori Hiratsuka, Director General, and NIER staff--"Problems of Japanese Education and the Role of NIER"
18:30	Dinner in small groups, hosted by JCIE associates, at various neighborhood restaurants.

December 7, Thursday

7:30	Depart hotel (by bus)
8:30	Primary School Visit (Momoi Daisan Shogakko) Suganami Ward - Mrs. Yoshie Moriyama, Principal Observation of in-school video braodcasting Classroom observations, including program for retarded children Luncheon discussion with teachers, parents, PTA, and School Board representatives of Suginami Ward.
15:30-16:30 (Optional)	Visit (U.S.) National Science Foundation office in Tokyo. Discussion with Dr. Henry Birnbaum.
17:30-19:30	Seminar with associate members of Educational Division of JCIE. Discussion Groups: 1. Educational administration, particularly on prefectural level 2. Vocational and technical education 3. Special education, early childhood education
19:30-20:30	Reception hosted by JCIE.

December 8, Friday

8:30	Depart hotel (by bus)
10:00	All-day visit to Tamagawa Gakuen (Academy) in suburban Tokyo (private academy from kindergarten through graduate school). Meeting with Dr. Kuniyoshi Obara, President.

2:30 — Depart for Hakone with visits enroute to Daibutsu at Kamakura; Lodging at Hakone Kanko Hotel (3 nights).

December 9, Saturday — Tour of Hakone area: Mt. Fuji, Hakone Open Air and Art Museums, descend cable car "ropeway", cross Lake Ashi by boat.

Dinner party (at Kagetsu-en Hotel)

Mr. Yasushi Ogawa, Asia Manager
Time-Life, Inc.

Mr. Hirotsugu Iikubo, President
Japan Export Counselling, Inc.

Dr. and Mrs. Kenneth Butler
Inter-University Center for Japanese Language Studies

December 10, Sunday

9:00-12:00 — Seminar: "Contemporary Political and Social Problems"

Professor Tasuku Asano
Department of Political Science
Kokusai Shoka College
(International College of Commerce and Economics, Tokyo)

Professor Takashi Konami
Department of Economics
Tokyo University of Foreign Studies

Afternoon — Traditional Japanese tea ceremoney and other optional activities in Mt. Fuji area.

December 11, Monday

8:30 — Depart hotel (by bus)

All-day visit to Sony Plant in Atsugi.

Discussion with Mr. Masaru Ibuka, Sony Chairman of the Board and Chairman of the Sony Foundation for Science Education, on his philosophy of education, personnel policy, etc.

Visit to day-care center of Sony, in-industry training programs, etc.

15:30 Depart for Tokyo

December 12, Tuesday

10:00-16:00 Discussion with staff of the Ministry of Education (at National Education Hall):

Mr. Shinjo Okuda, Director of Research and Planning of Ministry of Education and Executive Secretary of the Central Council for Education (which prepared Basic Guidelines for the Reform of Education (1972)).

--Ministry plans for educational reform

--Relationship between the Ministry and prefectural and local boards of education

--Structure and problems of Japanese education

(Luncheon hosted by the Ministry of Education)

December 13, Wednesday

8:00 Depart hotel (by bus)

10:00-13:00 National Technical College of Tokyo (5-year vocational technical education; combination of high school and junior college with extremely intensive and specialized technical training.) Dr. Tsuyoshi Arimori, President, and staff.

15:00 Museum of Science and Technology

(15:00) Interview on the role of women in Japanese society, at Women's Suffrage Hall, with Fusae Ichikawa, former Member of the Diet.

Evening Discussion with university students

December 14, Thursday

1 - 10:00-11:00 Isamu Miyazaki, Director General, Research Bureau Economic Planning Agency

or

2 - 9:00 Tokyo National Museum, Ueno Park, including Horyu-ji Treasures

2:00	NHK (Nippon Hoso Kyokai), Japan Broadcasting Corporation
	Discussion with staff and tour of studios
	Satoru Harada, Foreign Relations and Program Exchange Division
	Shozo Usami, Educational Program Department
	Akira Kojima, Chief Director Correspondence School Broadcasts, Educational Program Department (Program director in charge of Sesame Street programs)
18:00	Kabuki Theater

December 15, Friday

8:30	Depart hotel (by bus)
9:30-12:00	Early Childhood Education Kindergarten attached to Ochanomizu University: Dr. Hiroshi Sugo, Director
13:00	Special Education Otsuka School of Special Education for the Deaf
17:30	Depart Tokyo by Hikari Train #73.
20:23	Arrive in Kyoto. Lodgirg: Miyako Hotel (2 nights)

December 16, Saturday

9:00	Depart hotel.
9:30	Dr. Sakae Shimizu, Director, Kyoto Youth Science Center
9:30	Observation of student activities at the Center. (Observation of various facilities)
	Tour of teacher training facilities
	Discussion (luncheon courtesy of the Municipal Center)

12:30-14:00	Kyoto National Museum Special Exhibition Japanese paintings (from Nara to Edo Period) Caligraphy (Kamakura, Muromachi Period) Dyeing and Weaving (Momoyama Period)
14:50-15:50	Sanzen-in
16:00-16:40	Jakko-in
16:40-18:40	Shinmonzen Street
19:30	Dinner at Minokichi

December 17, Sunday

8:30	Leave hotel (by bus)
9:00-11:00	Daitokuji-Ryko-in Shinjuan, discussion with Zen Masters. Mr. Nanrei Kobari, Master
11:30-12:00	Kinkakuji (Golden Pavilion)
12:30-13:30	Luncheon at Kawamichiya
14:00-15:00	Nijo Castle
15:30-16:30	Toji-Temple
17:00	Arrive Kyoto Station
17:29	Leave Kyoto by Hikari Train #336
20:20	Arrive in Tokyo. Lodging: Akasaka Tokyo Hotel.

December 18, Monday

9:30	Depart hotel
10:00-12:00	Visit Japan Teachers' Union Masahiko Saito Director, Organization Department Misao Kuramochi Director, International Department

12:30 Luncheon: Prof. Sadako Ogata
Lecturer in International Relations
International Christian University

14:00 Tour of the Diet Building

14:30-16:00 Discussion with Hon. Yohei Kohno, Member of the Education Committee, House of Representatives, Diet

18:30 Dinner Meeting - Summary and Evaluation

Messrs. Tsutomu Kano, Kenneth Butler, Masao Kunihiro (Kokusai Shoka College)

December 19, Tuesday

9:00 Depart hotel

9:30 Seminar: "Changing Values, Universalistic Features and Particularistic Features in Contemporary Japan"

Professor Shin-ichi Takezawa
Professor of Industrial Relations
Rikkyo (St. Paul) University

14:00 Meeting: "Welfare Services in Japan"

Mamoru Tsunashima
Chief, International Affairs Division
Ministry of Health and Welfare

19:30 Dinner hosted by Hon. and Mrs. Takaaki Kagawa, Director-General of the Cultural Affairs Department, Ministry of Foreign Affairs, at Shimizu Restaurant. Also attending: Senkuro Saiki, Managing Director, The Japan Foundation; Kazuo Wachi, Chief, First Section, and Yuji Kurokawa, Cultural Affairs Department, Ministry of Foreign Affairs.

December 20, Wednesday

No scheduled program.

21:40 Departure from Haneda International Airport.

ASPECTS OF SOCIAL AND POLITICAL LIFE: BACKDROP TO THE EDUCATIONAL SYSTEM
(by Warren Eisenberg)

The filmy, foggy vagueness of ancient Japanese landscape paintings always seemed to me to be an advanced form of Impressionism. After seeing Japan, however, it's quite clear that the paintings are, in fact, detailed representations of the nation's countryside.

The land is shrouded in a morning mist that lifts to reveal a natural setting teased and tortured into regularity. The land in essence is like the people--who live in a world of vague definitions and non-confrontation--where they are bathed, cleansed, groomed and educated into what has been called "a conformist society of controlled castes which play follow the leader." What seems soft and vague in the people masks a determination to perform and succeed that has no equal.

Perhaps Herman Kahn was right when he opined that the 21st Century would belong to the Japanese. Who knows? Certainly they're making a strong claim on the future as they enter the last third of the Twentieth Century in third place among industrial powers of the world. And, taking into account their national zeal, their business acumen, their adaptability, their tendency to conform and follow the leader, and their focus on production that doesn't fritter away national resources on questionable luxuries (like a war in Vietnam), there seems to be a good chance that the Japanese could well fill the first slot some time in the Twenty-first Century.

With 109 million people, and a land base the size of California with considerably less arability, the Japanese have skillfully developed their country without having to bear the responsibilities or the pretensions of world power which hamstring the United States and the Soviet Union. This Japanese agility should not be surprising since the Japanese modernized and mechanized more than one hundred years ago after the Meiji Restoration of 1869, and they have made cultural importation and adaptation a national characteristic. For centuries the Japanese have imported ideas and improvements from abroad--everything from their Buddhist religion to the manufacture of radios. Even their concern about the dangers of pollution is an import from the United States. In the isolation of an archipelago they have shut out influences they didn't want, and have introduced, to a homogeneous and leadership-dominated society, new ideas -- usually copies from abroad. They have the wealth, degree of mass education, and the motivation to work through their ideas.

What becomes apparent in Japan is the willingness to bury the past and what is indigenous in favor of new ideas, or a Japanese replication of them. The old Japan can be seen in the temples of Nara--and in the obis worn by some women. The rest is new: skyscrapers, cars, pollution, electronic equipment--most of it copied, absorbed, developed from abroad. Everything from car wax to democracy is a copy, but perhaps no more than a thin coating over a network of customs, castes, and placid covers for emotions.

The Japanese are by no means accustomed to their own economic success as a rich nation, and as a source of ideas, particularly technological ones. As excellent manufacturers and improvers of copies -- they have broken into world markets in a number of areas -- they are third in world steel manufacture and could produce 65 percent of the shipping tonnage by 1975. At the same time the Japanese find it difficult to understand the hostile reaction they are receiving, particularly from countries as wealthy as the United States or those in Western Europe where Japanese televisions and radios are crowding domestic manufacture. The case of the thorny dealings with the United States over the 1972 textile agreement emphasizes the problems of displacement. The growing anger of southeast Asian nations over increasing investment and domination of their import markets by the Japanese is evident in a number of countries. For the Japanese, as individuals, the anger of confrontation is difficult to handle.

While Americans and Europeans cry foul and ask for Japanese self-restraint when their imports threaten domestic plants, the Japanese feel they are being penalized in countries which have surrendered to "laziness" or to inefficient production methods.

What has put Japan in the driver's seat of world economic development and trade have been the advantages of new capital equipment, single-mindedness, and the combined efforts of Japan, Inc., the combine of private interests which benefits heavily from government policy bent to protect and advance corporate growth and strength. As individuals, the Japanese are like members of one big fraternity -- the look-alike, dress-alike club -- and in terms of corporate development, they give a great deal of themselves to the corporation.

Fully 30 percent of the labor force works for major industry, which in this dual economy provides jobs for life with a full battery of fringe benefits. The remainder of the work force operates outside this employment paradise. One reason for the full employment in Japan, according to the operator of a small import firm, is that large firms overemploy, which creates a problem for small firms that have to rely on what's left in the labor market. The small firms usually get about one applicant for each executive position and they have to pay a monthly wage of approximately $500 per month, while the large firms need pay only $300.

If the driving force behind change in the country is the booming economy, the nature and body of politics provides the vehicle for change and for accommodation of change.

Politics

There is an air of resignation among intellectuals in Japan about the politics of non-confrontation. There is a sense of futility about the ineffectual state of minority political parties. Even so, there were still some surprises in the very predictable general election of 491 members of the Diet in December of 1972, while we were visiting Japan. True enough the LDP (Liberal Democratic Party) which has ruled since the end of World War II, won the largest single bloc of seats, dropping from 297 to 282, taking 46.9 percent of the total vote, the lowest in the last six general elections. Both the Communists and the Japan Socialist Party showed substantial gains. The election was democratic. The vote was high. Moreover, it was generally difficult to discern any major issues, since none of the opposition parties offered specific programs. However, the election can be viewed as a symbol of the voters' mistrust of Prime Minister Tanaka's "Japanese Archipelago

Remodeling Plan" for a better life, a political, social, and economic decongestant to relieve the major population centers of the nation of their problems by urbanizing and industrializing the more remote sections of the nation. It is the fifth plan since 1958.

A measure of this plan's popularity in problem-wracked urban centers might be seen in the strong election opposition to the LDP which came in the traditionally anti-establishment metropolitan centers of Tokyo, Osaka, Nagoya, Kyoto, and Yokohama. There the LDP pooled an average of 30 percent. The opposition parties, on the other hand, have no well-defined specific platforms, but are cast more in the role of the "loyal opposition." Nevertheless, the public showed considerable sophistication by cutting the centrist Democratic Socialist and Komeito parties, which had moved too close to Premier Tanaka's LDP in favor of the more radical and perhaps obstreperous Japan Communist Party, which gained 24 seats for a total of 38, and the Japan Socialist Party, which jumped from 28 to 118 seats.

The success of the two left wing parties has provoked predictions of a new phase of sharper confrontations between the conservative and progressive camps. In debunking the cynicism of the other minor party leaders, the Communist leadership struck a posture of arch opposition to LDP policy, publicly excoriating the Tanaka regime while behind the scenes trading for favors. The specific place for such deals was the Diet Steering Committee, in which deadlocks are sometimes resolved through the good services of "tactful" members. Such activities in the past have eliminated the need for confrontations.

The Communists, an indigenous party with no ties to either the Maoists or the Kremlin, will be members of the Diet Steering Committee since they now have more than 20 seats. They have strongly disavowed violence and extreme radicalism -- and since the 1972 victory both they and the JSP leadership have issued a call for unified anti-LDP organization. Their agenda for action, however, seems rather parochial, including pollution control and the nationalist demand to regain Sakhalin from the Soviets. This could signal political trouble ahead, and if the LDP is facing into a period of greater confrontation, it does so not as a single entity but as a federation of nine factions which vie for power, and which bases its power on individual ministries. At the time Kakuei Tanaka replaced Elio Sato as Prime Minister in 1972, he (Tanaka) used his powers and the promises of favors to gather the support necessary to take over after Sato was forced out for allegedly drawing Japan too close to the United States.

As Prime Minister, Tanaka, who negotiated the unpopular three-year textile agreement, has had to contend with nine LDP factions. Significantly, both Tanaka and leading opposition Fukuga factions suffered losses in the general election. In an effort to counter overall party losses, Tanaka called for party solidarity, and seems to be offering factional heads more power.

The post-World War II period in Japan has been an experiment in democracy, and the Japanese's strong protestations of democratic motives and democratic participation in everything from politics to school policy leads a number of their countrymen to comment that the definition of democracy doesn't gibe with the American conception. What is difficult to comprehend is not only the differing perception of democracy, but the rapid changeover from a militaristic, emperor-worshipping oligarchy to a democracy.

The oligarchy is still at work, in the form of a politico-economic directorate which develops public policy. It sets goals and makes accommodations to human desires.

On the outside there are the trappings of democratization -- parent groups, elected members of the Diets, labor unions. Women, however, do not yet have the political zeal they have been developing in the United States. And minorities, for all intents and purposes, do not exist.

It's the unions that best provide some insight into the nature of democracy in Japan. Japanese unions today bargain for the rights of about 11 million, or 20 percent of the nation's workers. However, they do not provide the strong vector force they have in the United States. The terms of the bargaining are preordained in Japan. And before the drive for wage increases visibly manifests itself in the annual Spring Offensive, agreement is already reached on the terms. The Offensive merely allows the unions to flex their muscles. Small non-unionized firms usually get the drift of the negotiations before the Offensive officially begins and they settle with their workers ahead of time. Because of the nature of Japanese employer-employee relations, and because workers view themselves as in the system for a lifetime, employers have considerable flexibility in deploying their workers to plants in other communities. However, this particular feature may not be a lasting one. While the system brakes against job jumping from one firm to another the average annual changeover between new hirees and separatees ran about 30 percent during the 1960's. And the signs of worker dissatisfaction, which have begun to appear, may mark the beginning of the end of "lifetime employment."

What forms the basis for a problem is the existence of a "dual economy," in which the workers under the roof of a major employer enjoy the attractive benefits a big firm can afford to pay, while 70 percent of the work force, much of it part-time, operates outside this protective umbrella and has to be satisfied with limited benefits for their health and retirement.

There is, however, a growing recognition in Japan that the unevenness in the job market can have a serious drag on the economy if it continues and the announced new program of the LDP is to concentrate on internationalization and the improvement of quality of life by improving benefits and by eliminating pollution.

The phenomenal growth of the last decade has placed Japan in an awkward position. Still not fully accustomed to success, the Japanese have been buffeted by demands from countries like the United States to slow down the bombardment of Japanese goods on foreign markets.

Complying with an 8 percent currency revaluation in 1971 caused a slight recession which the strong Japanese economy pulled out of in a year. However, the stock market staggered, production and shipments decreased, and commodity prices dropped. The recession bottomed out in late 1971, and pulled ahead in mid-1972. In the next few years Japan will have to demonstrate a flexible ability to transform the surpluses from trade and production into tools to solve the social problems of Japan -- like pollution and limited housing opportunities -- that were created by rapid industrialization. The age-old social problems which waited on the sidelines while the country marched ahead to become a great manufacturing and trading power are the problems of inadequate housing, poor land use planning, health care,

and elimination of a dual economy as well as the aggravated problems of conurbation. What's more, there is an increasing recognition in Japan that as the citizenry becomes more affluent, the demands for services will sharply increase -- and that the emphasis will be away from straight manufacturing.

What is difficult to perceive through western eyes is the Japanese ability to work through vagueness and the rigors of consensus to develop and make concrete a plan with goals and specific objectives. What is also difficult to perceive is the collusion between government agencies and private industry to reach an agreement and to execute the plan. However, through all the vagueness and the discomfort with confrontation, the Japanese have projected themselves on the world scene as a highly developed, technologically oriented power with a number of graces of a less developed area.

If all the success with its excesses -- of pollution and traffic -- are part of a fully realized plan to gain a prime position for Japan, then there is no need to discount the possibility that the Japanese can accomplish some form of social accommodation which satisfies the needs and demands of the majority of her citizens. However, if the Japanese face increased confrontations abroad, simultaneous with their internationalization, the increasing pressure for militarization may become strong enough to break a constitutional taboo on arms development. As of now the Japanese only spend 1 percent of the GNP on arms -- a low for a world power. However, with some internal pressure, particularly from the Defense Development Agency, coupled with pressure from the United States, the Japanese could well choose to achieve military supremacy. However, most Japanese still prefer to let the Americans shoulder the burdens of an Asian protectorate while they benefit from a peaceful invasion on the trade front.

The future that belongs to the Japanese may well be an uncomfortable one.

THE ROLE OF THE NATIONAL GOVERNMENT IN JAPANESE EDUCATION
(by Helen Sramek)

"All people shall have the right to receive an equal education correspondent to their abilities, as provided by the law." Thus Article 26 of the Japanese Constitution sets forth the basic premise that education in Japan is the right of all people. The fundamental principles of Japanese education were set down the following year, 1947, in the Fundamental Law of Education: that there would be equal educational opportunity; that there would be no discrimination due to religion, sex, race, creed, or social status; that the aim of education was to bring up good citizens who would become members of a peaceful, democratic community.

Certainly, no American would ever question the nobility of those goals. Indeed, the American influence in writing the Constitution and the subsequent legal framework is keenly felt in all aspects of Japanese society.

While the United States might have influenced the framework of the Japanese educational system, in practice that system is uniquely Japanese. Despite the American influence, Japanese education is highly centralized--a centralization that most Americans would agree could never work in the U. S. Japan is a small country, consisting essentially of one people, similar in cultural background and outlook. Perhaps that in itself captures the essence of the success of Japanese education.

There is no question in the mind of the visitor--indeed, among the Japanese themselves--that the Ministry of Education performs the chief policy-making function in determining the course of Japanese education. It is the Ministry of Education which determines the subjects to be offered, decides the objectives and standard contents of the curricula, authorizes the textbooks, supervises the course contents of teacher preparation, provides financial assistance to local authorities--in short, serves as the manager and overseer of the system.

As a group of Americans accustomed to the constant struggle between the Executive and Legislative branches which finally produces a compromise policy, it was with a bit of bewilderment that we viewed the Japanese system. If one is a member of the majority party in a parliamentary system, such as that in Japan, there is no struggle between the Executive and the Legislative branches. Thus, we were impressed by the seeming lack of conflict once the majority had decided policy and offered it to the Diet for its stamp of approval.

We learned from Shinjo Okuda of the Ministry of Education that the Ministry works very closely with the Diet. We learned from Yohei Kohno, an elected Member of the Diet, that the Education Committee of the Liberal Democratic Party (the majority party) works closely with the Ministry. We learned that the end result was the Administration line, the Party line, and the new policy of the country.

Being "typically American" and used to the ways politicians always approach the noble art of determining the public good, we felt that some of the story was missing. We learned little about the intra-party struggles--for example: how a 36-year old Chairman of the Party Education Committee convinces a much older member of the Ministry of Education (and obviously more powerful) that a substantial, perhaps radical, reform is necessary. We learned nothing about the input of members of opposition parties in working with the majority party. In short, we saw little of the politics of education during our too-brief visit.

Because the Ministry of Education is the primary force for change, we sought to find answers to those tough questions that are plaguing American educators and politicians: how to achieve equal educational opportunity; how to provide an education to all students of varying backgrounds and ability levels; when and where formal education should begin; how to coordinate the school with the harsher realities of the outside world. We learned from most of our visitations that the Japanese have only begun to address these issues. We received many statements of concern, saw a copy of a basic reform plan, and learned that some experimental projects may follow. Essentially, we learned that the Japanese have not reached that stage in their post-war development where they have felt the need to question the very essence of an educational system imposed on them by Americans who <u>are</u> now questioning the essence of that system.

Basically, we learned that differences between Japanese and Americans may signal the reason why their American-made educational system appeared to work better for them than it does for us. We saw happy children who seemed to be learning in situations that many Americans would describe as less than conducive to educating children--crowded, drab, cold classrooms often devoid of the modern instructional tools deemed by many Americans necessary to the educational process. We heard little mention of individualized instruction, counseling services and the like. We saw a system that seemed to work well for the average to above-average youngster who had "no hangups." We never really found out about what happened to a youngster who was not physically or mentally handicapped but simply did not fit into the mold.

Perhaps, an informal chat I had with a teacher in a junior high school sheds light on the subject. He said that he taught in one of the best junior high schools in Japan. When asked how he knew it was the best, he said with candor, that a good school is one which produces the largest number of good students.

The Japanese are a proud people. Parents want their children to succeed. Success in Japan is determined by the university from which one graduates. To attend the best university, one must pass through a highly competitive system. Parents instill in their children from an early age a desire to learn and a respect for authority. In addition, success in Japan is measured in material terms; thus, the emphasis is placed on cognitive learning skills which, the Japanese feel, are related to future success.

The Japanese have spent a generation trying to re-build a ruined nation. They have been concerned with basic survival. They have met with undisputed success. Perhaps that is why some of our tough questions met with occasional resistance and sometimes incredulity. The Japanese are proud of what they have accomplished since the war, and their schools are part of that accomplishment. Where they see success, Americans saw only questions.

I left Japan believing that in the next decade or so the Japanese will be faced with some of the problems which haunt us today. Perhaps our hosts saw me leave wondering why we Americans cannot take credit for a system that works so well for so many people.

EARLY CHILDHOOD EDUCATION IN JAPAN
(by Rita Eisenberg and Harley Frankel)

Most Japanese children of pre-school age do not receive formal educational or developmental services. However, those who do, fit into a rational system that distinguishes between educational activities and day care services provided to the children of working parents. These two components can be classified into two categories - the former being kindergarten services under the auspices of the Ministry of Education and, the latter, nursery school activities sponsored by the Ministry of Welfare.

Kindergarten

Kindergarten services are provided to approximately 1.9 million Japanese youngsters aged 4-5. Basically, kindergarten is an extension of the school system downward one year with the purpose of beginning the educational process earlier. However, it is not what professionals in the United States would call comprehensive and developmental - nor is it intended to be. Pre-school education is the objective, not the broad array of services Head Start and other developmental programs provided in our Society. (Note: Approximately 61.6% of the kindergartens in Japan are privately operated.)

It is interesting to note that the ratio of children to teachers in Japanese kindergartens is 33-1. (In Israel the ratio is reported to be 20-1; in Russia and Scandinavia approximately between 10-1 and 12-1. Most child care advocates in the United States argue as to whether the desirable ratio should be 5-1 or 7-1 for pre-school children!) The cost of Japanese kindergarten (approximately $17 per month) is much less than the cost of developmental day care in the United States ($175 - $200 per month). In Japan, kindergartens provide 3-4 hours of service per day with children bringing their own lunch. Handicapped children have their own preschools (of which there are few), and they seem to be segregated by handicap.

Nursery Schools

The Ministry of Welfare administers a nationwide nursery school system for children aged 2-5. The children served belong to families eligible for welfare. The program provides full day care for the children of parents who work and is not intended to be educational or developmental. Fees are charged in accordance with family earnings.

(In kindergartens, low-income families are subsidized by the Ministry of Education.)

Personal Observations

When we think back upon the young Japanese children it is as though we are thinking of one or two children instead of many. We see the very young child strapped to its mother's or grandmother's back, content in the closeness and accepting of whatever is happening. From this vantage point the

child sees and feels the adult world; it is not a view from a stroller - a view of legs and feet -- a terrifying world of giants. The mother is also aware of the child's presence and warmth; at the same time she has complete control of the child's actions. Perhaps it is the closeness that makes training the child easy, for children are "well-trained." We were amazed upon walking into an antique store to find a 3-year old playing quietly amidst valuables while grandfather showed no concern that something would break. This relaxed attitude appears to be prevalent in the adult-child relationship.

The other child we think of is the school child on the streets of Tokyo, going to and from school, an independent and "well-behaved" five- or six-year old taking the subways or buses alone. School children wear dark blue uniforms with yellow hats and bright red, yellow or blue school packs strapped to their backs with round faces, straight black hair neatly combed into bangs, short pants for the boys and knee-high stockings -- they are all immaculate, healthy and very "well-behaved." We never tired of watching the children interact; they are so alive and amiable. Not once did we see a child do anything mean nor did we see an unhappy child in the 2-1/2 weeks we spent in Japan. When we mentioned this to a Japanese woman professor she said, "Yes, but I think they are being raised too permissively." She could not explain in what way, except with a smile...

The Japanese generally believe that children should be raised at home under parental guidance. Parents are responsible for social development until the age of six when public education is provided. However, the importance of kindergarten is beginning to be recognized and there is more of a demand for kindergartens. Kindergartens are being built into some new elementary schools but the decision is left to the prefectures. At Momoi Daisan Shogaku school, 99% of the children had gone to kindergarten although the school itself did not have a kindergarten. In that school district, there were 41 elementary schools and only 4 public kindergartens while there were 50 private kindergartens or nursery schools.

Observing the pre-schooler in a classroom situation is pure delight -- we're sure it matters not what the country may be -- England, Germany, Russia, Japan or the United States. Just seeing little ones learning, creating, performing and playing is exciting in itself. That the Japanese children are more oriented to performance than to creative activity does not make them any less exciting. In fact, it is even more fascinating to watch them, for they are like mechanized miniatures. At the Sony plant kindergarten, a school not typical of Japanese schools, twenty-five 4- and 5-year olds stood at perfect attention and sang in English "Good Morning to You" without showing any sign of distraction. They then sat in their chairs and recited an English lesson for 15 minutes. In the next room there was a small group of children learning to play the violin by the Suzuki method. One child held the violin as another drew the bow and the teacher pressed the strings. The remaining children sat patiently until their turn. The third and last classroom was Sony's answer to Montessori in which Montessori materials are used with an added attraction of a kitchen where three little boys were very busy deftly chopping cabbages. The Chairman of Sony believes that children can learn at a very early age. Certainly the Sony kindergarten confirms the early learning ability philosophy and if the Chairman of Sony has his hopes realized it is a philosophy that could catch on in The Ministry of Education.

One day we visited Tamagawa Gakuen, a private academy offering education from kindergarten through graduate school. The kindergarten is even more atypical than the Sony kindergarten. Unlike most schools in Japan where the emphasis is preparing students for entrance examinations, Tamagawa is dedicated to developing character or "the whole man." We are not authorities on kindergartens but the Tamagawa kindergarten is the most exciting we have ever visited anywhere, including our own nursery schools.

The ambience of the school is generated by the dynamic personality and warmth of Dr. Obara, the 85-year old master who says, "The children keep me young." The setting for the kindergarten is above a large lotus pond where white swans and ducks swim and where children can explore and fish. There are four very airy mushroom-shaped buildings on two levels. Lovely gardens and play areas surround the buildings. There is a huge blue elephant whose trunk is a slide ending in a sandbox which is a wading pool in the warm weather. There are plants to enjoy and animals to pet: a pet bird had found a perch on a little girl's shoulder. Everything imaginable in the way of equipment was available. But what really impressed us was the small muscle development and coordination which Japanese children have. We don't know if it was physiological or our own theory that the small muscles are developed by using chop sticks. Lego blocks and jumping ropes were big items and used adeptly; paint brushes and pencils were held properly; children were playing "Mary had a Little Lamb," "Chop Sticks" and other songs on the piano. Outdoor equipment was excellent with swings, bars and complicated climbing apparatus. There are 130 children in the kindergarten with 8 faculty members and 13 student teachers who attend the university, so it is a built-in teacher training program. Tamagawa has to be seen to be believed...

"TOTAL EDUCATION":

TAMAGAWA GAKUEN - TAMAGAWA ACADEMY
(by Glee Saunders)

Our visit to Tamagawa Gakuen was one of the highlights of the trip. The warm welcome and gracious hospitality of founder Obara and his staff reinforced our positive reaction to the school. The purpose of the school, as stated by Dr. Obara, is to produce a whole man who is capable of self-direction and who is intellectually, spiritually, morally, esthetically, physically, fully and harmoniously developed.

To achieve this purpose Tamagawa was founded in April of 1929. Dr. Obara chose a rural location about 40 minutes' train ride from the center of Tokyo. Here he acquired approximately 300 acres of farm land and started his school. The campus land now consists of 175 acres-the remainder having been sold. There are other units of the school in other parts of Japan. The grounds are beautiful and well-maintained. Most of the maintenance is done by students as part of their total educational experience. The entire enrollment is approximately 7000 students. Elementary students commute and about 60 percent come from Tokyo and the other 40 percent from the surrounding prefecture. Junior and senior high school pupils are from all parts of Japan and from foreign countries such as Taiwan, Thailand, India, and Portugal. At the university level, about 70 percent are from the entire country. Dormitories are provided for students from junior high through university and post-baccalaureate level.

The Structure of the School

1. The Kindergarten — 3 years old and above
2. The Elementary School — 6 years (Lower and Upper)
3. The Junior High School — 3 years
4. The Senior High School — 3 years
5. The Women's Junior College — 2 years
   - General Culture Course
   - Nursery Course
6. The University — 4 years
   - The Department of Literature
   - The Faculty of Education
     - Education Course
     - Teacher Training Course
   - The Faculty of English and American Literature
     - Literature Course
     - Commerce Course
   - The Faculty of Arts
     - Fine Arts Course
     - Music Course
     - Dramatics Course
     - Physical Education

The Department of Agriculture
The Faculty of Agriculture
The Faculty of Agriculture Chemistry
The Department of Technology
The Faculty of Mechanics
The Faculty of Electronics
The Faculty of Technology Administration

7. The School of Technology
Mechanics Course
Electronics Course

8. Correspondence Education
For those engaged in business and other professions; enrollment approximately 27,500 students. Tamagawa University is the only one in Japan where the students are able to obtain, through correspondence education, the certificates for elementary school teachers. This Department of Correspondence Education is especially strong in training students in educational spirit, in method of teaching and the Pestalozzi spirit.

The Educational Research Institute consists of 380 researchers, represented by the teaching as well as by the clerical staff of Tamagawa University. The Institute is attracting a number of scholars and co-workers from various parts of Japan as well as foreign countries.

Tamagawa University Press has published a number of educational books, thus playing an important role in the field of New Education of the whole man.

The ESS group travelled to Tamagawa by bus from Tokyo. Our first sight of the school was the railroad station, which is at the entrance. We walked up a path through beautifully landscaped grounds. There was a large pond on our left and we noticed a number of boys wading in the water and collecting materials from the pond. We were told they were collecting specimens for a science experiment. The boys appeared to be about 10 or 11 years old.

Dr. Obara met us and remained with us throughout our visit of several hours. The first buildings we saw were the kindergarten buildings. These were well-furnished and there was much play equipment and many pets. Little girls were walking about carrying pet birds. The children were extremely free and well-poised. They took great pride in greeting us. The teachers were young, active, and very accepting of the behavior of the children. There was a good sized playground area. Because it was winter when we visited, the pool held sand rather than water. We were told that the playground, the pool, and much of the equipment had been built by university students as part of their own educational experience. Children in the kindergarten ranged in age from 3 to 5½ years old. They were not in uniform. Dr. Obara led us through the various classes in the elementary school. The students were working on such subjects as arithmetic, calligraphy and reading. As we visited, the children accepted us with awareness but having visitors did not disrupt their classes. Two young bilingual boys accompanied us and explained things along the way. These boys were Japanese who had spent several years in San Francisco and were very pleased with the opportunity to show off "Their School".

As we progressed up to fourth, fifth, and sixth grades we found much independent activity--not isolated but usually several students working together on projects. In one large art studio, about 50 students worked individually on a wide variety of projects including painting, ceramics, architectural models and woodworking. The art seemed to be of very high caliber for the

age groups. We visited the shop where each boy makes his own violin. We noticed that girls were using jig saws but for the most part the girls were doing such things as embroidery, sewing, and other "feminine activities."

We observed students in the sixth grade rehearsing, in English, a dramatic scene from the classics. Drama is used extensively in the study of English. We also observed children in calisthenics. Here rhythm, grace, and freedom of movement seemed to be the objective for each child.

In a music class, we heard students sing, again in English, and play various instruments. They seemed to be enjoying themselves tremendously. We asked our bi-lingual guides why there were so many more girls than boys in the music class and they told us that this was free time when students worked on their electives and pointed out that boys were more interested in science projects than in music. The music class sang songs which all of our group knew and we had a song fest of old favorites. The class ended with the students and guests singing the "Star Spangled Banner".

Dr. Obara and his staff hosted the group to a delightful luncheon during which there was a free flow of questions and answers. Dr. Obara spoke of his religious background and how important religion is to the entire education process. He was born in a Buddhist home and the family he adopted was Shinto. He himself is a non-denominational Christian. He has declined to have the school become a part of any one religion because he feels that a mission board might interfere with his policies of education which are based on the freedom of religion. He described various Tamagawa religious practices which are ecumenical, though predominantly Christian in origin. Buddhist priests, all denominations of Christian sects, and other religious leaders are welcome to participate in the religious observances at the school.

He explained that the educational process at Tamagawa is planned to be as free as possible from the spirit of competition. Since public education is free only through grade nine, there is great competition for admission into the high schools and all public or state universities have stiff examinations for admission. Dr. Obara feels that public education is geared primarily to preparing students to take the entrance examinations for secondary and higher education and that students are required to memorize a great deal of information which has little meaning beyond the examinations. At Tamagawa, each student competes only against himself and the information required is directly related to the interests of the students. The Ministry of Education has required that specific courses be taught to all students and Tamagawa is meeting these requirements reluctantly. Since successful progress through each phase of education at Tamagawa automatically assures entrance into the next phase, without competitive examination, there is no need for instilling strong competitive spirit in academic subjects.

There is no program of extramural sports competition, although there is a strong and active physical education program and students play all sports. The physical education program is based primarily on gymnastics which are patterned after the Danish style. Gymnastics stress rhythm and grace and each individual progresses within his own limits. Horseback riding, archery, swimming, and skiing are major sports. I saw no physically handicapped students at Tamagawa but was informed that they did have a mentally retarded child in the elementary school.

While Dr. Obara states that children are not all from "good" families he qualifies the statement by saying that about 20 percent are from young

families whose parents are from the division-chief group. My impression was that the elementary students were of remarkable homogeneity.

When asked about the future prospects for Tamagawa graduates, Dr. Obara said they are generally good. He credits some of this to the help of the alumni. It was obvious that Dr. Obara reflected the cultural pattern of Japan in the education of women primarily as homemakers. There were pictures of girls in science laboratories in the upper school, but we did observe that girl students seemed to be doing more traditionally "feminine" tasks.

We asked other educators about the placement of Tamagawa graduates. We were told that there were very few in high level government positions and, as far as our respondents knew, there were few national leaders in industry who were Tamagawa graduates. Tamagawa has post-graduate education but has no school of law or of medicine. There is a strong program for the preparation of teachers and Tamagawa provides in-service training to a large number of public school teachers through correspondence and seminar programs.

Tamagawa is not permissive. The program is rigorous and is geared to the total development of the individual student. The stress on the moral, the esthetic, and the physical well-being of each student in addition to his/her academic achievement, in a situation in which students perform the work necessary to maintaining and sometimes constructing the physical plant of the school, is designed to prepare individuals for a complete and productive life. My reaction to the school, the headmaster, and the program is that it is idealistic. It is predicated on preparing students to develop ideals and to live an ideal life. However, since society is somewhat less than ideal, even in Japan, I am left wondering about the adjustment of the graduates to the real world.

EDUCATION OF THE HANDICAPPED
(by Ronay Arlt)

Japan's public elementary and secondary education continues to reflect the conventional structure of public education it adopted from the United States in the mid-forties. Consequently, special education is limited to those with severe handicaps. A child is either in a regular class or he is in a class for the retarded, deaf or blind.

In the public schools we were unable to find specialized teachers for those either with emotional or learning difficulties or with exceptional abilities. The teacher--without the aid of paraprofessionals--is responsible for teaching and dealing with whatever learning problems the students might have, as best he or she can. Furthermore, the lack of special teachers does not seem to be compensated for by special training (in teachers college or in "in-service" programs) in dealing with the more subtle forms of learning difficulties that can turn up in the classroom.

One educator made a pertinent comment on this matter: "Our teachers may not have special training for dealing with learning difficulties, but they make up for it in the individual care they give each student." He was suggesting that Japanese teachers have much more personal involvement with their students and students' families than teachers in the United States. This comment reminded me of the Japanese policy that teachers must visit the homes of their students at least once a year. The teachers we talked to indicated that they usually make a number of such visits in a year.

The Deaf

The family's involvement in a child's education, traditional in Japan, is brought into the school in the instance of education of the handicapped. In the Otsuka School of Special Education for the Deaf, for instance, we found the mothers of the students in the classrooms, often taking notes on how the children were being taught. The purpose of this activity is to extend their children's education and special training into the home. In the case of 3-, 4-, and 5-year olds, the mothers come to school with their children. After the 1st grade, until the 6th grade, the mothers take turns in coming. As one might imagine, after six to nine years of this classroom participation, the mother has acquired some expertise. Indeed, we witnessed one such mother teaching a class.

Currently the teachers union is urging the prefectures and the Ministry of Education to hire some of these trained mothers as teachers aides after their children have graduated. This participation of a parent in the education of a handicapped child is one educational innovation by the Japanese that merits close examination in the United States--although I would submit that the involvement should not be limited to mothers only.

We asked, "What about the fathers?" The fathers of children attending Otsuka are exempt--if, on the other hand, the mother can't attend the classes for some reason, the child doesn't go to the school. One day of each school year is set aside for fathers to come to school and receive rudimentary lessons on how to talk to their children. The hope is that this sketchy instruction will be supplemented by the mother at home.

Schools for the deaf started in Tokyo in 1878. Presently, there are six municipal K-9 schools, 4 municipal high schools, 2 national K-12 schools and one private K-9 school for the deaf in Tokyo.

For the lay observer, one of the more fascinating devices in the Otsuka school was the wireless hearing amplifier, made by Rion, a Japanese firm. The amplifier, a small box built into a student's desk, enables the student to sit at a desk, unencumbered by wires, and have the teacher's voice amplified through his hearing aid via this box.

The children in the school were happy and at the same time well-disciplined. One could not help but be warmed by the devotion and patience of the teachers, both men and women, who were instructing these students, some of whom were multiply-handicapped (15 out of the student body of 210). This affection was reciprocated.

The Otsuka school has a teacher who is a specialist in audiology and another who is a specialist in speech therapy.

Interestingly, the school claims that all of its graduates go on to high school, most to a special high school for the deaf, to receive either vocational or liberal arts education.

In Japan, the severely deaf are taught lip reading. Until 1925, there was a debate over whether the deaf should learn sign language or lip reading. Finally, in 1925, lip reading, which originated in Germany, won out because it was determined that sign language inhibits the learning of words and alternatively lip reading stimulates thinking. Consequently, Japanese schools now teach sign language only as a supplement to lip reading.

The Mentally Retarded

We had the opportunity to visit one classroom for the mentally retarded in a primary school in Tokyo's Suganami Ward. Again, one was touched by the warmth of the teachers toward their students--and even a sense of pride in their accomplishments. At the time of our visit the students were engaged in painting. We were told their I.Q. levels range between 55 and 75. Most of the school's retarded students go on to junior high where they receive vocational training and later are hired by factories and shops. But, the learning goals for the retarded of Suganami are limited. In their classroom hangs a sign posting all the characters that we were told the children would ever learn and be able to read. The sign was not very large nor the characters many. This reflected an understandable bit of pessimism on the part of educators, but an unfortunate limitation on the students.

To Japan's credit, education in institutions for the retarded is under the direction of the Ministry of Education rather than the Ministry of Welfare. The teachers within the institutions are paid by the Ministry of Education and the principal of the local school from which the retarded student is

referred stays in touch with the school director--another indication of the Japanese educators' personal interest in a student's progress. Similarly, the Ministry of Education makes recommendations for the education of confined juvenile delinquents. A juvenile graduating from a prison school is not given a normal diploma but receives a special diploma. We asked Mr. Konimatsu, Chief of Special Education in the Ministry of Education, if this doesn't brand the one-time delinquent for life. His response was a smile and a shrug.

Plans for the Future

The Japanese are expansive in their plans for bettering the quality of education for the handicapped. We were told by Mr. Konimatsu that in the next seven years the Ministry hopes to build in cooperation with the prefectures, 243 new schools for the handicapped. In this time they also hope to fill the gap that now exists in education of the retarded in early childhood years. Currently, while there are pre-school programs for the deaf and blind, the retarded must wait until age five before government-assisted training can begin.

As part of its efforts to improve special education, the Ministry of Education created a National Institute for Special Education. In a pamphlet issued by the Ministry of Education on the National Institute explaining the "raison d'etre of the Institute" the following statement is made:

> "...there has been a growing need for the special educational care for the severely and/or multiply handicapped, the emotionally handicapped, the speech handicapped and others, to whom the careful educational consideration has been given."

The functions of the Institute include research in the field of special education for the handicapped, the collection and dissemination of such research information and inservice training for teachers of special education. Of particular interest is the Institute's teacher inservice training that started in 1972 "to improve the quality of the leading or experienced teachers in the field of special education." Such training is given either for 12 months (long-term training) or 3 months (short-term training).

Overlooking the Pacific Ocean in Kurihama, south of Tokyo, the Institute's modern facility includes a Child Guidance Clinic. The Clinic provides comprehensive diagnosis and advisory service for handicapped children and their parents. This year a school for handicapped children will open for severely and/or multiply handicapped children. This school will provide a type of "laboratory" for developing new teaching methods for handicapped children. The array of handicaps included in the Institute's purview is reflected in the various departments. There is a department of the Visually Handicapped, of the Speech and Hearing Handicapped, of the Mentally Retarded, of the Physically Handicapped, of the Emotionally Disturbed, and of the Multiply Handicapped.

After visiting schools and speaking with educators for two weeks, one could see germinating the seeds of innovation and change in all areas of education. In this decade in which Japan expects to direct more of its resources and attention to domestic needs, there is promise that special education will find a greatly expanded role in Japanese education.

EDUCATIONAL RESEARCH IN JAPAN

by Roger E. Levien*

Having participated in the planning of the recently created National Institute of Education, which is to serve as a focal point for educational research and development in the United States, I approached the Japanese educational research system with anticipation and a readiness to learn. I knew before arriving that there was a National Institute of Educational Research (NIER), and that it had been in existence for many years. I was vaguely aware that the research system was highly ramified, with branches reaching deeply into prefectural and municipal education agencies. Indeed our preliminary itinerary had proposed a visit to the Tokyo Metropolitan Institute for Educational Research, and in doing so had conjured up expectations of a relationship between educational research and public schooling that is still some distance from American experience. (Imagine a New York City Institute for Educational Research -- perhaps even with Al Shanker, Rhody McCoy, and Ken Clark on the Board.)

The advantage of a field trip like this one (except for the romantics among us) is that reality quickly clarifies the blurry images formed through the incomplete testimony of the written word read 8,000 miles away. Trips to the NIER, to a local school, and to the Research Division of the Ministry of Education, while certainly not adequate to make us experts on Japanese educational research, were more than enough to bring our lofty expectations firmly to ground.

The Japanese are clearly ahead of us on the organization charts; the infrastructure they have created is formidable and in many respects

worthy of emulation. Before educational R&D will reach its full effect here, we shall have to establish some similar network of institutions infiltrating every level of educational policy -- national, state, and local. But when we turn to the substance of what that system does, with what eventually affects the classroom, the gap is very probably in the other direction. Here our evidence is less adequate; the three visits I noted were concerned only slightly with substance, and we talked with no researchers about their work. Nevertheless, the written material we received and our general discussions pointed strongly to a program of activities reminiscent of U.S. research before the impetus provided by the programs of the early 1960s. The content seems to comprise the conventional academic research agendas (educational psychology, history, philosophy, curriculum), the usual local activities (statistics gathering and in-service training), and some nationally organized, qualitatively evaluated field trials of innovative programs in pilot schools. Altogether, although we obtained no comprehensive figures, the annual Japanese investment in educational research and development appears to be both absolutely and relatively much smaller than ours. Indeed even the advantage in infrastructure may be illusory. We learned at the Ministry of Education that a new R&D Division was created in May to "coordinate education research and development" and that they had used a copy of our NIE preliminary plan to help organize it!

The organization of the Japanese educational R&D system is not easily comprehended, despite their much more highly centralized system of education. The keystone is certainly the Ministry of Education, from which most -- but not all -- authority and funds derive and which has a large influence over what gets done; but, the system is best viewed as embracing three segments, defined by the location of the constituent research units. The three are education agencies (national, prefectural, and local), research institutes, and universities and colleges.

EDUCATION AGENCIES

Both the national government, in its Ministry of Education, and the prefectural and local education agencies have research constituents.

Ministry of Education

Educational research has several homes in the Ministry of Education, each having different goals and modes of operation (see Figure 1).

Secretariat. Within the Minister's Secretariat there is a *Research and Planning Division*; its research component has a staff of 50 professionals of whom -- it turns out -- 43 are gathering and publishing

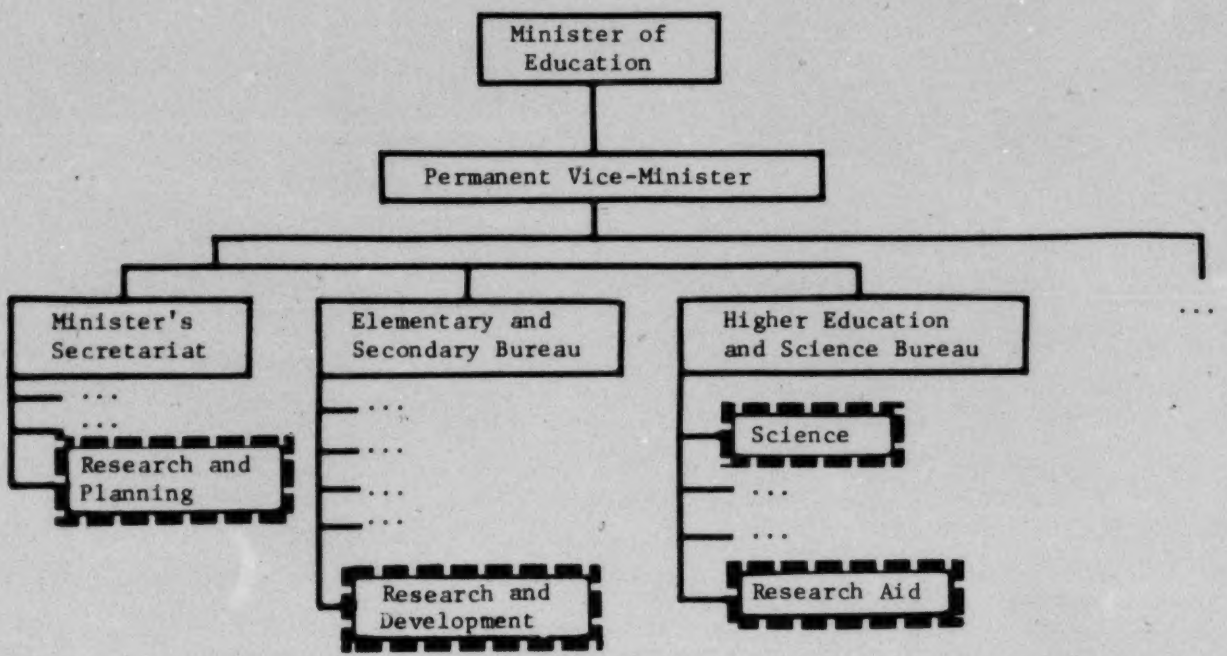

Figure 1 -- Research components of the Ministry of Education
(Dotted lines indicate bureaus with a research responsibility.)

statistics and 7 are conducting comparative education studies. They are the counterparts of USOE's National Center for Educational Statistics and portions of its Institute for International Studies. Each year this research (statistics) group runs three regular surveys (basic school statistics, local educational expenditures, expenditures shared by parents) and two or three special studies. This year, for example, they are doing a basic survey concerning "lifelong learning." These surveys are actually conducted by the prefectural research institutes, whose funds come from the Ministry of Education on a formula basis to pay for the surveys. In sum these surveys appear to cost between $15 and $20 million annually.

Higher Education and Science Bureau. In the Higher Education and Science Bureau there is a *Research Aid Division*, which funds scientific research through grants to the universities. Slightly less than 2 percent of these funds are for research in education, about $500,000 in 1971. This paid for 118 projects, one-third on educational technology and curriculum, one-third on science and industrial education, one-sixth on philosophy and history of education, and the remainder comprised a miscellany of studies of special, higher, and social education, and research in the sociology and psychology of education.

The Higher Education and Science Bureau also has a *Science Division*, which has administrative and budgetary responsibility for the NIER. Should development of innovative programs be undertaken in higher education, their support would fall to one of the other divisions of this bureau, such as that on teacher training, technical education, or university education.

Elementary and Secondary Education Bureau. In May 1972, the Ministry of Education created a *Research and Development Division* within the Elementary and Secondary Education Bureau. The staff of this nascent division now numbers nine and controls only a small budget; the figure we were given translates to less than $9 million, but even this figure may be high. The division will coordinate the activities of the NIER, the 46 prefectural research institutes, roughly 100 private research institutes, and research undertaken by faculties of education. Its other tasks are (1) to make overall plans for educational R&D and

to commission research studies and development affecting school systems, curricula, and teaching methods at the elementary and secondary level; and (2) to collect and utilize information and materials concerning educational R&D, sponsor and attend study meetings, and nominate pilot schools for research. The use of pilot schools will, presumably, follow the current pattern. The Ministry assigns schools to conduct trials of innovative programs, providing whatever additional funds may be needed. After the trial is completed, the Ministry sponsors a national "consultation" to which both the participants in the trial and appropriate experts are invited. They form a qualitative judgment of the success and value of the program, which is published and distributed nationwide to all schools. Such consultations may also be arranged locally. The current emphasis in the pilot school program is on the use of technology. Fifty experimental schools have been selected for the national program. Each prefecture will, in addition, assign its own experimental school to explore topics related to the national theme. The prefectural research institutes will work with the prefectural experimental schools. In the past, experimental programs of this sort have been managed and supported through a division of the Elementary and Secondary Education Bureau; it is not clear whether the R&D Division will now take exclusive responsibility for all of them or whether it will share it with the other divisions.

Prefectural Boards of Education

The Prefectural Boards of Education also have research sections, which apparently are limited to ad hoc, administrative activities.

RESEARCH INSTITUTES

According to the staff of the NIER, there are on the order of 400 educational research institutes in Japan. Two of these are national: the NIER and a National Institute of Research on Special Education, which has just recently been formed. In addition, each prefecture and important municipality has one, and so do many private companies. (It appears that the reference to private research institutes may be the

result of national differences in linguistic usage;* these "institutes" may simply be the research and product-development components of private firms. Our term "laboratory" might be a better translation.)

Local and Prefectural Institutes

About 170 local and prefectural institutes belong to the *National Federation of Educational Research Institutes*, with offices at the NIER. Each year the Federation organizes two cooperative projects (this year, Systematization of Education and Social Recognition of Children) and a series of conferences on such topics as Education in the Family, Mathematics Education, School Management, and Infant and Family Education at which each institute reports on its studies.

The *prefectural research institutes* each have staffs of about 100, of whom 20 or 30 are research specialists. They receive money from the National Budget on a formula basis according to the number of students and teachers in the prefecture. Only one-third of these institutes have funds beyond those provided from the National Budget. As noted earlier, their principal roles appear to be the gathering of statistics and assistance to the pilot schools in the prefecture.

Municipal research institutes are supported by the municipal and prefectural governments. Their primary function appears to be in-service training. For example, at the Momoi Daisan Shogakko primary school that we visited in the Suganami ward of Tokyo, we were told that the teachers were released from the classroom a day or two a week for in-service training at the Tokyo Metropolitan Institute for Educational Research. Of somewhat greater interest, because of the favorable British experience with Teacher Centers and the consequent American interest in teacher-centered R&D projects, is the fact that Suganami ward has its own institute for educational research and in-service training that each year establishes several themes relating to problems faced in the ward's schools. The institute has a separate building and a staff of five,

*Another hypothesis is that there exists some provision of Japanese tax law or bureaucratic procedure that confers special benefits on research institutes and not on laboratories.

assisted by eight clerks, who do teacher counseling and research. Teachers from the ward schools serve on its research committees.

National Institute of Educational Research

The National Institute of Educational Research was created in June 1949; like the NIE, it inherited staff from a predecessor -- the National Educational In-service Training Center. The NIER's function is "to carry out fundamental and comprehensive research on education with the purpose of providing basic information and materials which should be useful directly or indirectly for the establishment of educational policies of the State and local governments."* In strong contrast to the NIE, the NIER does not support research done elsewhere; its sole function is to perform research itself. Its total staff is 90, of whom 63 are research workers. They are organized into five numerically designated research departments and then into twenty research sections, each having a chief and two research workers. In addition, a closely associated *Japan Educational Research Promotion Association* appears to funnel funds from industrial and business firms to support another 30 or 40 researchers at the NIER. Another 200 part-time collaborators participate in the Institute's activities. The Institute's funds are provided principally by the government, through the Ministry of Education as mentioned earlier. In 1971, these amounted to $650,000 with another $80,000 provided by industry. The precise degree of control exercised by the Ministry of Education is unclear. Relations between NIER and the Ministry appear to be good; however, the NIER asserts that the Ministry cannot order them to make a study. At the same time, there is clearly a close linkage between NIER administrators and the Ministry power structure; consequently, embarrassment as a result of NIER research findings is not likely to be a major concern for Ministry officials.

The interests of the five research departments provide a good guide to the NIER's program:

*"NIER," brochure published by the National Institute for Educational Research, Tokyo, Japan, 1971.

I. History and philosophy of education; comparative studies.
II. Educational planning, administration, and finance; education in Asia.
III. Pupils' abilities; measurement and evaluation; guidance, counseling, and selection; infant education.
IV. Primary and secondary school curricula; industrial education; adult and youth education.
V. Mathematics and science education.

The subjects of recent projects have included the history of modern Japanese education, international comparisons of higher and teacher education, educational planning, selection of university students, pre-school curriculum, programmed learning, life-long education, and educational functions of the family. The last project comprised a survey of Japanese families that selected 14,000 families with children for a study of intentional and unintentional education. They found that in Japan, as in the West, with the decline of the extended family (and consequent growth of nuclear families) the relationships between parents and children are becoming weaker, the traditional way of life is declining, and more and more education is being turned over to the school.

The NIER relies on three techniques for implementation of its findings. First, its research reports are distributed widely. Second, through its External Service Department assistance is provided to teachers, researchers, and authorities at national and local levels who visit NIER or who occasionally receive NIER staff visits. Third, many NIER staff members serve on the advisory councils and committees that appear to wield so much influence on Japanese educational policymaking. Dr. Hiratsuka, Director-General of NIER, told us that he serves on more than ten such councils, including the influential Central Advisory Council on Education.

UNIVERSITIES AND COLLEGES

We learned very little about the research activities of the faculties of education at Japanese universities and colleges. The situation appears to be similar to that in the U.S., many researchers conducting small projects with little direct influence on the schools. The NIER indicated that about 2,000 professors, lecturers, and assistants were conducting educational research. Other figures we saw suggested that the number may be closer to 7,000 or 10,000. Differences of definition of research and of level of effort may account for this discrepancy.

JAPANESE TEACHERS UNION

One of the potentially more interesting research activities of which we heard, but could not explore fully, is *Minken -- The People's Education Research Institute*, established by the Japanese Teachers Union (NIKKYOSO) in 1957. According to the union's brochure:

> MINKEN devotes itself to educational research to serve the real interests of the people in close and broad cooperation with scholars, men of culture, teachers and parents as well as other democratic educational organizations. Its theme of study covers the history and theory of democratic education as follows; [*sic*] study of the realities of educational reform made under national monopolistic capitalism, study of educational rights of teachers and nation, study of the tradition of democratic education, etc.*

In addition, the union has held 21 annual *National Assemblies for Educational Research*. Both the Institute and the Assemblies appear to be more devoted to in-service training than to research; both are very strongly motivated by the union's clearly expressed desire to oppose the policies and activities of the Ministry of Education.

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*"Japan Teachers Union: Its Organization & Movement," a brochure published by Kyoikukaikan, Tokyo, Japan, 1972.

SCIENCE EDUCATION AND PUBLIC UNDERSTANDING OF SCIENCE IN JAPAN
(by Harley Dirks and Clancy Ohlke)

Science education and the public understanding of science were of particular interest to several of the participants in the Educational Staff Seminar visit to Japan. Time did not permit extensive study of these areas of interest since all participants devoted most of their efforts to the visits in general education. However, from our very short learning experience in visiting various government, university, industry and museum resources in Japan, much of interest was found in the way of science education and the public understanding of science in Japan.*

These subjects should not be considered separately, but must be viewed in the context of the entire history, culture, social customs, education and politics of Japan. While it is not possible, of course, to gain a deep understanding of these background subjects based on such a brief visit, a few impressions gained are reported since the field trip has certainly contributed to our appreciation and understanding of the specific areas of interest.

Overview

First, with regard to education, the Japanese people have a long history of good education and the popular culture includes a deep commitment to, and an extremely well disciplined striving for, such a basic education.

While the government is presently based on democratic principles, the structure of the family, social organizations, industry, government and indeed education and science are vertically ordered and quite rigid; individuals, for the most part, are "well disciplined" by American standards, at least.

One anomaly which repeatedly came up was the imprecision of the Japanese language which would normally be thought a barrier to a highly technologically oriented society but which has not prevented Japan's outstanding achievements.

One of the most significant aspects of science education in Japan is the requirement by the Ministry of Education that science be taught at all levels in all schools, whether national, prefectoral, municipal or private. A first impression was that the training at elementary and secondary levels is directed more toward technology (training students for work in industry or even homemakers). However, it soon became apparent that science education and the training of people is broadly based and of high quality.

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*An additional paper, by David Lloyd-Jones, an ESS "alumnus" now living in Tokyo, was prepared to assist ESS participants. A copy of Mr. Lloyd-Jones' "Observations on the Public Understanding of Science in Japan" is available from ESS.

In addition to the unusual legal requirement that science be taught at all levels in the schools, a White Paper on Science and Technology (April 1972) by the Minister of Science and Technology, Prime Minister's Office, will probably have added significance in its social and political impact (see below) and will greatly enhance the science competencies of the Japanese people.

Also significant to science education and the public understanding of science appears to be the interest of corporations, such as Sony, which we visited, and Hitachi whose representatives have contacted us since our return to the States.

Several articles were brought to our attention concerning science education in Japan, the most recent being an article in Science magazine by Dr. Arthur Findeis, August 18, 1972. Dr. Henry Birnbaum, the NSF Science Representative in Japan, is preparing an article on this subject which he discussed in some detail with a small group of our ESS participants.

The teaching science museum which the group visited in Kyoto appeared to be making a major and unique contribution to science education due to its close interrelations with the school system in the city. There were many groups of students present the day we visited. Also, many of the teachers at the museum are on assignment for several years' duration from their posts as science teachers in the public schools of Kyoto. We were told that there are as many as 100 teaching science museums in Japan, if not of the same quality as Kyoto's.

With regard to the public understanding of science, Dr. Birnbaum indicated a number of activities in the way of publications, public exhibits and TV and film programs. A visit to the Japan Public Broadcasting Corporation (NHK) revealed a strong emphasis on science and technology-oriented programming on both their TV and radio broadcasts.

Following is further detailed discussion concerning the principal points indicated above as well as some notes on discussions with educators, resource people and visits to some schools which contributed to our learning experience in these particular areas.

Legal Requirements for Science Education

Education is unique in Japan in that the curriculum, textbooks and teaching methods all are strictly controlled by the Ministry of Education in all schools, whether national, prefectural, city or private. The school education law requires that science be taught at every grade in elementary, lower secondary, and upper secondary schools. Mathematics is also required of all schools in upper secondary schools. To our knowledge, there is no other country that requires science to be taught in all grades to the extent that it is in Japan and where the courses of study and textbooks are strictly prescribed by the central government for all schools -- public and private. The emphasis on science for the various levels of education can be appreciated from the hours for various subjects taught in the lower and secondary schools that are required by the Ministry of Education as published in Outline of Education in Japan, July 1972, Agency for Cultural Affairs, Government of Japan (tables on the following page).

Table 10 Standard Number of Yearly School Hours* in Elementary Schools
(Effective from 1971)

Subjects	1st grade	2nd grade	3rd grade	4th grade	5th grade	6th grade
Japanese Language	238	315	280	280	245	245
Social Studies	68	70	105	140	140	140
Arithmetic	102	140	175	210	210	210
Science	68	70	105	105	140	140
Music	102	70	70	70	70	70
Art and Handicrafts	102	70	70	70	70	70
Home-making	–	–	–	–	70	70
Physical Education	102	105	105	105	105	105
Moral Education**	34	35	35	35	35	35
Total	816	875	945	1,015	1,085	1,085

*One school hour represents 45 minutes. The schools must give instruction for 35 weeks or more per year.

**In private schools, moral education may be substituted with religious education.

Table 11 Standard Number of Yearly School Hours* in Lower Secondary Schools

(Effective from 1972)

Subjects	7th grade	8th grade	9th grade
Japanese Language	175	175	175
Social Studies	140	140	175
Mathematics	140	140	140
Science	140	140	140
Music	70	70	35
Fine Arts	70	70	35
Health and Physical Education	125	125	125
Industrial Arts or Homemaking	105	105	105
Moral Education**	35	35	35
Special Activities***	50	50	50
Elective Subjects****	140	140	140
Total	1,190	1,190	1,155

*One school hour represents 50 minutes. The schools must give instruction for 35 weeks or more per year.

**In private schools, moral education may be substituted with religious education.

***"Special Activities" means extra-class activities such as pupil assemblies, club activities, pupil guidance, school ceremonies, school excursions, etc.

****Pupils may choose more than one subjects from among foreign language (English, German, French or any other language), vocational subjects, and other subjects determined by local education authorities in light of local needs, pupils' abilities and prospects, etc.

Legal requirements for curriculum and compulsory education do not, of course, extend beyond the secondary schools. Science education is extremely important at the undergraduate and graduate levels of higher education. While the group did not visit any university science departments, our informant told us that Japan does have an exceedingly good science capability. Apparently, the schools are very well equipped. For example, it was explained to us that Kyoto University has as many as 60 electron microscopes.

The competition for entering the universities is very keen and quite rigorous. Once admitted, students usually go on to graduate. The quality of those going on to graduate school, we were told, is quite good. Japan has had very few foreign scientists at its universities but many of their own scientists have visited and studied elsewhere.

White Paper on Science and Technology--Science and Technology Agency, Prime Minister's Office, Tokyo

This White Paper, published in April 1972, outlined new demands for science and technology and what could be done to fulfill them. Following are the four main recommendations of the report:

"First, greater importance should be attached to social rather than economic considerations in undertaking research and development projects.

"Second, the so-called technology assessment system should be developed and implemented so that the impact of science and technology on man and nature will be examined in depth.

"Third, efforts should be made to develop new areas of science and technology such as the environmental sciences (for solving environmental and urban problems), the soft science (for scientific and comprehensive analysis and clarification of social and economic conditions), and the life science (for the understanding of life phenomena and the application of biological processes).

"Fourth, greater efforts should be made to augment international cooperation in science and technology both in terms of quantity and quality."

It is our understanding that this report is being taken seriously and that the Minister of Science and Technology is in a very powerful position to push the implementation of these recommendations.

Discussion with Dr. Henry Birnbaum, National Science Foundation Representative in Tokyo

Dr. Henry Birnbaum is in his second, three-year tour as the NSF Science Representative in Japan. In addition to having a rather extensive knowledge of Japan, he has been with NSF for many years and has an in-depth familiarity with science, science education, cultural aspects of Japan, and public understanding of science.

Dr. Birnbaum pointed out that there is a daily Japanese newspaper which features science and scientific activities almost exclusively. The American publication Scientific American is published in Japan in Japanese.

There is also a magazine which in some ways is the equivalent of Science, the weekly publication of the American Association for the Advancement of Science in the U. S. There is also a monthly magazine, Science and Technology. These publications are available in any large subway station. There is a fair sprinkling of science and science fiction books published in Japan. There seems to be a trend for the science books to be on the subjects of pollution, environmental problems, transportation, new communities as related to relocation of industry, etc. The larger department stores usually have public exhibits several times during the year and many of these relate to science; Dr. Birnbaum recalled a polar research exhibit and one on fossils. He said that these are well done and usually tie in with newspaper stories that also carry advertising about the department store.

The Japanese Public Broadcasting Corporation, NHK, (which we visited later) has many programs on science, particularly in connection with its education programs. NHK in addition to having programs on science, publishes books which are used in connection with the education programs on math and science.

Seventy percent of the funds for research and development in Japan come from industry and the remainder from Government. While there is a very effective science information capability, there is little that relates to innovation but more to high quality technology. In the past there has been less emphasis on Ph.D's and their activities than on technology and its relationship to cultural and nationalistic thrusts. The new directions based on the White Paper on Science and Technology will probably bring about a change in direction and strengthen Japan in fundamental science and its application to social needs.

Sony Plant, Atsugi, and the Sony Foundation for Science Education, Tokyo

An all-day visit to the Sony Plant at Atsugi included a tour of the electronics and components department, a visit to the day-care center, housing for single workers, luncheon with Mr. Masaru Ibuka, Sony Chairman of the Board and Chairman of the Sony Foundation for Science Education and his top staff, an after-luncheon speech by Mr. Ibuka on his philosophy of education, a tour of the assembly line plants, and a look at some of the advanced television products of Sony.

The manufacturing of electronic components and assembly line plants correspond very much to such operations in the U. S. except that much of the work is done by rather young female employees. Discussion brought out that the average beginning wage for these employees, many of whom come from rural areas, is Y700,000 for high school graduates and Y900,000 per year for junior college graduates. This would approximate, on conversion into U. S. dollars, $2500 - $3000 per annum.* This includes bonuses, as well as base pay. Lodging and meals are available to these employees on a charge basis but are not high. In addition, these employees are encouraged to pursue their education. The average length of stay of these single female employees is about three years. They are eligible for vacations at Sony-owned and operated resorts and are normally given nice presents and other "fringes" when they get married.

*Exchange rates are approximate and quoted at the time of the field trip--December 1972.

Mr. Ibuka, Sony Chairman, devoted his after-luncheon talk to his philosophy of education. The main thrust of this discussion was that very young children, ages 1 and 2 are at the most impressionable age to be taught and that education systems should be geared more in this direction.

A few days following the visit to the Sony Plant two Sony officials, Mr. George M. Hatoyama, Chairman of the Board of Sony Magnascale, Inc., and Mr. Shoshin Aoki, Director, Sony Foundation of Science Education, had a dinner for Messrs. Dirks and Ohlke of the ESS group and Yamamoto and Kazuo of the Japan Center for International Exchange. The purpose of this special dinner was to discuss further the activities of the Sony Foundation for Science Education which was established in October, 1972. The Foundation was provided Y100 million (about $330,000) and after two years Sony will increase the amount to Y200 million (about $660,000). In addition, the yearly operational expense of the Foundation in granting these funds is estimated at about Y100 million. Initial grants have been made to schools at the elementary and the lower secondary school level to improve science education methods and also to arouse public interest in this field in other countries, as well as Japan.

Since the establishment of the Sony Science Education Division, a total of Y113.5 million (about $363,550) has been awarded to 566 of the 2,900 Japanese schools which applied for this assistance. In addition to the money awarded, Sony also spent about Y500 million (about $1,700,000) over the last 14 years to assist these schools in carrying out their programs.

The Sony Science Education Division sent a group of five leading teachers from Japanese primary and lower secondary schools to the United States for seven weeks last year to give them the opportunity to observe efforts being made in our science education programs.

It was pointed out to the Sony representatives that often discretionary money given to schools is not as effective in contributing to science education improvement as if a comprehensive system, including curriculum, textbooks, courses of instruction, is developed. Also, while enrichment programs for teachers are beneficial, there is some experience that there may be more effective ways to improve science education. We were of the impression that the Sony Foundation for Science Education -- while seeming to be appreciative of this suggestion -- might be more interested in Sony's program of good will and good standing with the various schools in Japan than in recruiting workers for its programs that are well trained in the broader concept of science education for people who may enter generally into science as a profession.

Visit to Kyoto Youth Science Center

We visited this center on a Saturday morning and were welcomed warmly by the Superintendent of the Science Center, Mr. Katzami Terada. Much of the detailed discussion concerning the center and supervision of the subsequent tour of the center was under the direction of Dr. Sakai Shimizu, Director of the Kyoto Youth Center and Professor of Nuclear Physics at Kyoto University.

The center was established in 1951 to further science education. It is obvious that the city is quite proud of the center, as it should be. (The Mayor had sent symbolic keys to the city to each ESS visitor.) While we

were told that there is no other science center in Japan that does so much teaching of students as the Kyoto Center, we later learned from people such as Dr. Henry Birnbaum that there are very many such centers and that Tokyo's is probably on a par with the Kyoto Center.

The centers are very closely tied to the education system and are actually under the jurisdiction of the local Board of Education. The main purpose of the center is training students and teachers. The staff of the center totals 63, of whom 25 are teachers. These teachers are selected from the various schools in the city and stay three or four years and then return to their regular duties. The annual budget for the center is Y150 million, of which Y90 million is for personnel costs and the remainder for teaching materials, busing, maintenance, etc. Funds are derived principally from the municipality, but some funds are donated by civic groups. This year, for the first time, the Ministry of Education made available Y5.8 million, presumably because of the international recognition that the center is getting and because of its contribution to science education. The Board of Education makes Y150 million available annually, for both operation and construction costs.

The origin of the center apparently was not the idea of one person but came from teachers, professional staff of the universities, and the PTA. An advisory board has representatives from the professional staff of Kyoto University and elementary and intermediate level teachers. The immediate goals of the center are to increase the number of teaching staff, increase the frequency of student visits, and to originate two or three more centers within the City of Kyoto.

In addition to the teaching of children (about 60,000 children visit for teaching sessions during the year), the center is used for general science education for citizens. For example, every two months the center is open for special lectures by leading scientists. Also, considerable emphasis is placed on teaching household science for female homemakers. There are science groups or clubs of young people who also use the center. It is estimated that about 50,000 people make use of the facility over and above the visits by children and classroom groups.

During the period of the teachers' tour at the center, efforts are made to teach them both the philosophy and techniques of science education.

With regard to youth activities, there are science clubs in the junior high schools in Kyoto which have annual competitions in science every January. There are no prizes but citations are given. The center is the focal point for this effort. The Japanese newspaper, Youwari, we were told, also provides annual competition for science clubs nationwide.

The center sponsors no traveling exhibits, although they have had many requests for such an activity. Nor does the center deal with the social sciences.

Nippon Hoso Kyokai (NHK) Japan Broadcasting Corporation

Mr. Satoru Harada, Foreign Relations and Program Exchange Division, chaired an afternoon meeting for ESS at NHK. Shozo Usami and Akira Kojima, both of the Educational Program Department, also participated in our visit.

NHK is a quasi-public organization which is independently operated under a Board of Governors appointed by the Prime Minister with consent of both Houses of the Diet. However, since the Board of Directors cannot be reappointed, NHK is relatively free from politics.

NHK has been in existence in radio since 1925 and in television since 1953. It depends almost exclusively for financial resources on receiver fees paid by TV subscribers. (There are no radio fees.) The total funds, collected in fiscal 1971 was Y101 billion or a little over $336 million.

NHK is important to science education and public understanding of science because the broadcast law provides specifically that NHK programming and broadcasting should elevate the cultural level of the people, disseminate new culture and should present local, as well as nationwide, programs. In compliance with these requirements, science, as well as the arts and humanities, is heavily programmed. As far as could be observed from a very brief visit and literature which was provided by NHK, science really means heavy emphasis on technology.

The learning experience in Japan of science education and the public understanding of science was fruitful and rewarding to members of the ESS group. Japan ranks second among nations of the free world in terms of industrial production measured in GNP. Japan has achieved this tremendous success largely through putting to work the fruits of science and technology. This could not have been done without highly skilled and well-trained people.

In addition to many close political, cultural and economic ties, the United States has a deep interest in Japan because of its preeminence in some scientific and technology fields, the need for the U.S. to have access to some of the unique facilities in Japan and the need for broader collaboration between the U.S. and Japan on problems common to both countries.

The ESS should continue to include, whenever appropriate, exposure of its government policy participants to learning about science education and the public understanding of science.

Note: See the notes, beginning on page 78, of our visit to the Kyoto Science Center.

HIGHER EDUCATION
(by Warren Troutman)

Some Highlights in the History of Japanese Higher Education

A Jesuit missionary traveling to Japan in the Sixteenth Century tells us of two universities already operating there. He also describes the many Buddhist Temple schools whose function appears to have been much like the familiar monastery schools of medieval Western Europe. For the 300 years following these travels, the system which existed then seems to have evolved slowly in numbers or size but without major changes in the pattern of higher education.

A major turning point was the Meiji Restoration during the 1870's which brought many changes to Japanese life, including a new educational law setting up eight university districts throughout the archipelago. Each of these districts encompassed 32 upper secondary schools to channel suitable students to the local district university. Without major reformation, this system prevailed until the time of World War II, at which time the number of universities had grown to 48, capping a system wherein a number of other kinds of schools for education in technology and teacher training had come into existence.

With United States occupation at the end of World War II, U.S. authorities put into place a system of higher education which corresponds roughly to its American counterpart, with the popular four-year college curriculum and with general compulsory children's education extending through the ninth grade.

Institutions of Higher Education

There are presently three main categories of higher educational institutions in Japan:

Universities (Daigaku)

There are approximately 400 public and private institutions, requiring for admission the completion of high school or equivalent and offering a Bachelor's degree. Of these 400, approximately 200 offer advanced degrees leading to the Master's and the Doctor's.

Junior Colleges (Tanki-daigaku)

Japan counts about 500 of these, offering two- or three-year programs mostly in the fields of home economics, social sciences, and humanities. The majority of junior college students are women, whose credits may be used occasionally in a transfer to a regular university.

Technical Colleges (Koto-senmon-gakko)

There are more than 60 of these, all of which offer five-year programs to graduates of the junior high schools. Course offerings include architecture, aeronautics, mechanical engineering, metalurgy, electrical engineering, civil engineering, technical engineering, and electronics.

The technical colleges came into existence by legislative decree in 1962, growing out of a sharp increase in demand for well-qualified technicians in the Japanese industrial world. Of the total, 44 are national, 4 are local public, and 7 are private. In addition to technical courses, each five-year curriculum includes subjects such as

English, a second foreign language, history, ethics, law, and physical education. Most technical college students commute from their homes in the same prefecture, but a few living at great distances are housed in college dormitories. For these resident students, room and board cost about U.S. $26.00 a month. Tuition and fees are reported elsewhere in conjunction with other institutions of higher education.

Useful data about Japanese universities and students appear in the following table:

TABLE 1.*

Number of Institutions of Higher Education and Students, May 1971

		Number of Institutions	Number of Students*		
			Total	Male	Female
Total		938	1,790,501	1,292,552	497,949
Public	National	150	361,594	299,607	61,987
	Local	80	69,551	45,017	24,534
Private		708	1,359,356	947,928	411,428
Universities		389	a) 1,468,538	1,199,892	268,646
Public	National	75	316,444	256,411	60,033
	Local	33	49,389	36,767	12,622
Private		281	1,102,705	906,714	195,991
Junior Colleges		486	275,256	46,602	228,654
Public	National	23	10,222	8,864	1,358
	Local	43	16,281	4,411	11,870
Private		420	248,753	33,327	215,426
Technical Colleges		63	46,707	46,058	649
Public	National	52	34,928	3,839	596
	Local	4	3,881	3,839	42
Private		7	7,898	7,887	11

*Includes students in graduate schools and in advanced or short-term courses, but excludes those in correspondence courses.

a) Includes about 10,000 foreign students, mostly Chinese and American.

Even a cursory glimpse at these figures reveals some startling things about the Japanese higher education.

First, is the fact that the private universities enroll almost 75 percent of the total university student population. The national public universities attract 22 percent of the student population, and the balance pursue their career at the local public universities. The figures for junior colleges show that about 90 percent of their students (almost all female) are enrolled in the private sector. Conversely, in the technical colleges 75 percent of the student population are enrolled in the public national technical colleges, about 9 percent in the local publics, and about 16 percent in private institutions.

Interviews with Japanese educators and public administrators reveal additional important aspects of the Japanese system which should be added to this kind of tabular information. In the first place, private institutions apparently enjoy much more freedom than the public institutions

*All tables from Outline of Education in Japan

in the matter of faculty appointments and tenure arrangements. This came up constantly in conversations. Secondly, and most important, no permanent faculty or research appointment to a national university may be conferred upon a non-Japanese. This section of public law has aroused considerable opposition from many intellectuals in both public and private universities. Masao Kunihiro of Kokusai Shoka College, an especially able and articulate interpreter of Japan to the West, put it this way:

> "If the students in their intellectually formative and viable years were exposed constantly to foreign elements, either among their professors or among their colleagues, not through books but as foreigners on the hoof, so to speak, developing dialetics with heterogenous stands and modes of thinking, experiencing first-hand the confrontation between differing ideas in lieu of simply reaching easy-going compromises between basically homogenous elements, then a cross-examination of ideas would transpire and the expansion of intellectual vistas beyond the national boundaries would become a reality. The kind of intellectual parochialism typified in the national universities of Japan will prove a serious disservice not merely to these young people as individuals but a major liability to the future of Japan's development of capabilities in communication, the facility in foreign languages being only one aspect of them."

Thirdly, college student mobility is not nearly as much a fact of life as in the United States. Students seem to confine their application to colleges in their own prefecture, with the notable exceptions of the universities of Tokyo and Kyoto and one or two others which draw from the entire archipelago. Mobility is also reduced by mechanical impediments and a strong tradition against college transfers, both between universities and from one type of higher education institution to another. Finally, the private universities in Japan seem to offer the same differences of course offerings and the same divergent standards of quality which we observe in America.

The three types of Japanese institutions present startling differences in areas of academic concentration elected by the students. In the public universities, student enrollment in the sciences and engineering account for almost 50 percent, whereas, the humanities and social sciences (overwhelmingly elected in most United States colleges) constitute only 25 percent or so. The pattern of student concentration in the private universities, on the other hand, veers more in the direction of the United States, with 50 percent of the students in humanities and social sciences, while one-third of them are in the natural sciences, merchant marine, medicine, and agriculture. A totally different pattern is presented, as one would expect (given the predominant female student pattern), in the junior colleges, which show 30 percent concentration in home economics, 20 percent in education, and 20 percent in the humanities.

Educational Administration

There are three levels of educational administration in Japan and they correspond directly with the three types of higher education institutions. At the top, and by far the most important, is the Ministry of Education with responsibility for the promotion and dissemination of education at all levels -- both public and private -- in the humanities, in science, and in "culture generally." It operates directly the national public education establishments which include youth houses and museums as well as the national universities, junior colleges, and technical colleges. It also approves the establishment of all local public and private institutions.

Under the Ministry of Education lie the prefectural administrations in each of the 47 main political subdivisions. Each has a prefectural board of education responsible mainly for primary and secondary schools by serving

under the Governor, whose office administers directly all prefectural universities and junior colleges. In addition, the Governor devises all educational budgets for submission to the Prefecture Assembly.

A third level of educational administration consists of the municipal boards of education and the mayors, who preside over the municipal universities and the municipal junior colleges. Altogether, there are 3,288 municipalities in Japan, with each Mayor preparing his own education budget for the Municipal Assembly.

The Ministry of Education sets minimal standards for graduation from all institutions of higher education. It is formalized in a credit-hour system differing somewhat from that in the United States. The technical colleges find themselves with a mandate to teach 6,545 hours of academic instruction and to provide, in addition, 105 hours of extracurricular activities:

TABLE 2.

Minimum Credit Requirements for Graduation from Institutions of Higher Education

Subject Area	Universities				Junior Colleges		
	Undergraduate		Graduate				
	Courses other than medicine & dentistry	Medicine and dentistry	Master's course (1)	Doctor's course (1)	2 year course	3 year course	Technical Colleges
	4 years	6 years or more	2 years or more	5 years or more	2 years	3 years	5 years
	credits	credits	credits	credits	credits	credits	hours
General Education	36	36	—	—	12	18	1,785(2)
Humanities	12	12	—	—	4	6	385
Natural sciences	12	12	—	—	4	6	980
Social sciences	12	12	—	—	4	6	420
Foreign Languages	8	16	—	—	—	—	770
Physical Education	4	4	—	—	2	3	350
Professional Education	76	—(3)	30	50	24	36	3,640
Additional Credits Required	—	8	—	—	24	36	—
Total	124	64	30	50	62	93	6,545
Thesis	(4)	—	Required	Required	—	—	—

(1) There is no master's course in medicine and dentistry. The duration of doctor's course in medicine and dentistry is 4 years or more.

(2) One class hour represents 50 minutes.

(3) 64 credits in basic education relating to medicine must be completed in the first two years. A prescribed course in medical education, without credit allocation, must be completed in the last 4 years (in 4,000 hours or more).

(4) Variable requirements, with variable credits.

The Ministry of Education has many subcommittees for special purposes and of differing duration. In higher education, there are committees responsible for planning, university operation, teacher training, medical education, finance, international science, student affairs, and research. Two of the most active and important committees advising the Ministry in one capacity or another are the Central Council for Education and the National Institute for Educational Research. We spent considerable time with the chief executive officer of each. The Central Council, consisting of 20 members, was established in 1953 as "the supreme advisory committee for the Minister of Education," and has a wealth of responsibilities; it seems to this observer to exert little authority over final policy decisions made by the Minister himself.

Financial Support

Financial support of all public education in Japan is shared by the municipal, prefectural, and national governments, each of which has its own table of tax revenues. Of especial importance, however, is the practice whereby the two secondary levels of administration receive annually from the national government a form of revenue-sharing funds which are not earmarked for any political purpose. Each government, therefore, decides for itself how much to allot to its own educational purposes within the broad standards set by the National Ministry of Education for all prefectural and local boards. Although there are certain specific subsidies levied by these government departments specifically for educational purposes, a large part of all financial support rests in the allocations by the national government out of its income tax, corporation tax, and liquor tax revenues. The national government recently has designated about 32 percent of its revenue so derived to the prefectural and municipal levels and has attempted to adjust the individual allotments in such a way as to reduce the inequity of tax bases among the prefectural and municipal areas.

On the whole, Japan was reported to have led the "advanced nations" of the world in 1955 in the area of public support of education measured as a percentage of national income. That happy picture, however, apparently has been reversed as Japan's GNP spurted to such an extent that by the year 1971, Japan devoted a total of five percent of her GNP to public education and ranked "at the bottom of the list of advanced nations."

Tuition is free in public elementary and junior high school, but tuition and fees are charged in all public high schools and public higher education institutions. Tuition and fees are uniform at the national institutions, but the municipal and prefectural authorities determine the charges for their own areas. It should be noted that tuition fees collected from the national universities do not go into, or constitute, an educational budget, but rather are poured into general revenue. The following table presents the tuition picture in greater detail:

TABLE 3.

Annual Amounts of Tuition Fees for Public and Private Educational Institutions, as of April 1972

School Level	National Institution	Local Public Institution	Private Institution (National Average)
Amounts in U.S. Dollars			
Kindergarten	23 dollars	0~46 dollars	114 dollars
Upper Secondary School (Full-time Course)	31	31~40	161
Technical College	62	35*	230
Junior College	94	0~162	270
University			
Humanities & Social Sciences		40~156	293
Science and Technology	117	40~162	398
Medicine & Dentistry		40~117	992

* For Tokyo Metropolitan Technical College

Admission to Colleges and Universities

Practically all of the higher institutions severely limit the number of students admitted each year on the basis of competitive examinations. These examinations usually cover a minimum of six subjects, or a maximum of nine. Selection of students also may be based, in part, on the high school or junior high school academic record and on the recommendation of appropriate school authorities. Admission to the upper secondary schools (high schools) and to the technical colleges is almost always on a competitive basis. Thus, the wise parent attempts to be sure his child is enrolled in the proper elementary school leading to the proper lower secondary school, which completes his compulsory education, for admission to the proper high school. To complicate matters further, if the goal is a private university, then chances for admission are best if the student attends a close and appropriate private high school with which the university has a working relationship. The picture at the national public universities is an entirely different one, however, in that they draw students from throughout the archipelago, those students having survived very difficult entrance examinations and having emerged primarily from public high school backgrounds:

TABLE 4.

Proportion of Students Successfully Advancing to Universities or Junior Colleges, 1971

	Total	Upper Secondary Graduates of 1971	Upper Secondary Graduates of 1970 or Before
A. Applicants for Higher Education Admission	681,237	498,200	183,037
B. Successful Applicants	472,367	355,820	116,547
B/A	69.3%	71.4%	63.7%

In the school year 1970-71, approximately 681,000 students applied for admission to university or junior college status and 69 percent of these were admitted. Of the admissions, however, approximately 25 percent had graduated from high school at least one year prior to the year of admission and thus had failed, presumably, the entrance examinations one or more times. In a word, admission to Japan's prestigious universities is a difficult matter and has a special aura not unlike that in the United States prior to World War II. An editorial in the December 11, 1972, Japan Times remarks:

> "The problem of getting into a university still occupies more minds than what happens to the student afterward. It is not solely an individual problem, though. The system of screening applicants by forcing them through an "examination hell" is a social issue with only one side -- everybody deplores it.
>
> "While there are complaints that the universities have overexpanded, they are yet unable to accept all applicants. Nor should they be expected to, for surely not all of them are apt for university studies. This year the acceptance ratio was one out of 5.3."

Student Politics

Student action reached a frenetic peak in the 60's after World War II had succeeded in bringing about many new trends. Traditionally, Japan as a nation gave unshakable veneration to education and to teachers, but this attitude has been moderated sharply, even to the extent of a growing anti-intellectualism. A recent survey of 20 million Japanese families (out of

23 million) indicated three measurable trends not unlike those in the United States. The child-parent tie (always very strong in the Orient) is weakening. The typical Japanese family is getting younger. Finally, there is a general dilution of "Japanese ways," from child-rearing to philosophy. Population pressures on the gates of higher education have redoubled, of course, along with "increased materialism" among the young. The number of color TV's is a vital national statistic. Students raise choruses of objection to the curriculum of their secondary school training as one of rote learning, stultifying, and directed solely toward university admissions. As a result of this, complain those students, the first two years of university are merely informal -- leaning away from any structured learning situation -- and providing free time for revolt or demonstration. Indeed, since class attendance is not mandatory and since examinations are not necessarily a regular regimen for passing, many students may find themselves happily unburdened with academics. Minimal term papers sometimes serve as suitable credentialing for a semester course and student acceptance of the broad academic challenge of a great university may wait until the third or fourth years.

The unrest has led to a familiar demand pattern for social recognition and freedom for self-actualization (doing your own thing). By-products, of course, are anti-establishment fiats. When a Japanese student group decides to demonstrate (with possible repercussions of riot), its leaders work out time and place with the Japanese riot police well in advance of the date. If the affair gets out of hand, however, the riot police (most feared of all the arms of the law) move in literally with the clubs of final authority.

President Eisenhower decided not to visit Japan as a result of one series of violent riots, as many will remember. At home, the students forced a serious examination of university structure and governing policy. Reform proposals by students, sounding familiar to U.S. ears, were forced to an issue -- changes in curriculum, election of the college president, appointment of top college administrators, student participation in faculty bodies and on governing boards, and so on. Student demonstrations continue to take place in Japan and such behavior is considered a perfectly acceptable norm.

As in the United States, the student pressures could not be contained, in most cases, by a university president acting alone or by a department faculty however well organized. Hence, the various administrative subdivisions of the universities were forced closer together and special vice presidents have been appointed to deal specifically with the external and internal unrest.

Reform

A major new thrust in Japanese education has been the proposal for the University of the Air, growing out of a broad spectrum of secondary and primary school educational broadcasting which has been part of Japanese radio-television for years. Carried on through some 3,300 broadcasting facilities in just about every remote corner of the archipelago, through the giant operations called NHK, educational broadcasting today involves several integrated radio and television networks. About half the total correspondence high school students in Japan (140,000) are enrolled in NHK programs. There are vocational and technical courses; foreign languages--English, French, German, Russian, Spanish, and Chinese; special courses for the physically or mentally handicapped; and broad cultural presentations. Course materials leading strictly to a baccalaureate degree are still experimental, however, and subject of much political debate -- inside and outside the Diet -- at this writing. Since a TV University student is not likely to riot, there is some measure of Diet support solely on such

antiseptic grounds. Further, discussion in Japan has followed those lines debated so long in the British Open University, i.e., how to provide the academic "ideal" of the classroom and the extracurricular friendships developed in social situations? The problem of credentialing, of prime concern for the external degree type student anywhere in the world, is refusing easy definition and solution in Japan, as elsewhere.

Another example of new thinking in higher education is the new university at Tsukuba, north of Tokyo. This is purposely not modeled after any existing facility and is designed to be the new National Center for Educational Research and, as such, is to be the first of a new category of universities. The Department of Education of the University of Tokyo is scheduled to move to the new site over the next few years.

The Central Council for Education has produced a pamphlet, Basic Guides for the Reform of Education in Japan which includes recommendations for reform of post-secondary education. These include providing an additional two categories of higher institutions, i.e., universities, junior colleges, technical colleges, graduate schools, and research centers. An important recommendation would separate teaching from research and another would open higher education "to the general public" of all ages, for continuing education and by means of scholarship awards to students not now receiving such. There would be rationalization of the size of institutions and of the managerial functions, and the facilitation of interuniversity movement of teaching staff. There would be greater national funding of private universities, improvement of student selection methods by means of a common aptitude test to compensate for differences in high schools, and "betterment of student welfare" through broader provisions for dormitories as a better way of college life. No one knows, of course, how far these propositions will be carried and it should be kept in mind that debate in the Diet has delayed or even smothered some reforms in the recent past on at least two occasions.

Such, then, is the temper of the times in higher education. Formidable pressures from students and faculty alike, combined with the desire to open up the doors for more and more students at the post-secondary level, present a pattern not unlike that of the United States.

VOCATIONAL EDUCATION IN JAPAN

(by Barbara H. Kemp)

"The secret of Japan's great economic thrust and industrial productivity is in her education." This was the comment of an economist who had served with the U.S. Embassy for seven years in Japan. So, as I was looking into the vocational education activities I was also seeking the meaning for this statement. In the course of this discussion I will attempt to put together impressions of things seen and heard and relate them to the observation of the economist.

Labor sees its interests tied up with management's in the economic growth of the nation and seems to have become part of the "company structure" by its own volition. We were told that Japanese industry has made most of its workers generally satisfied through corporate policies which offer salaries and bonuses twice a year, training programs, and fringe benefits. There is little mobility of workers, and training programs are geared to the needs of a particular work place.

Meeting with Shoshichi Doi, Supervisor of Industrial Education for Elementary and Secondary Vocational Schools, Ministry of Education; and Gizo Matsushita, Supervisor of Agriculture Education

As of 1972, there were 53 National Technical Institutes completely under the control of the Ministry of Education. These are 5-year institutions -- the 3 years of secondary school and 2 years of post-secondary work. (This will be discussed more fully in description of site visits.) Five of these are for merchant marine studies.

According to 1972 figures, only 2,000 out of 4.7 million junior high school students chose to study vocational education. Out of 4.1 million high school students, 1.7 million are in vocational-technical classes, and 2.5 million are in comprehensive and academic schools. The vocational technical education budget is 7.5 billion yen ($25,000,000).

Basic policy on vocational education is made in consultation with an Advisory Council of Industrial Education, the Economic Planning and the Labor Ministries. There are also advisory committees on the curriculum.

National Technical College

We visited the National Technical College of Tokyo in Hachioji-Shi, an institution which opened in 1965. Its purpose is to train highly qualified technical experts. It is one of 53 national, 4 municipal, and 7 prefectural technical institutes which together have 10,000 students. A further breakdown shows that 55 of the schools are general technical, 3 are electric technical, and 5 are merchant marine. The National Technical College offers

4 courses -- mechanical engineering, electronics, industrial chemistry, and electrical engineering. Each department takes in 40 students per year. It offers a 5-year program, and about 600 students are enrolled. As we toured the site, I felt that the equipment was primitive yet adequate for instruction in basic scientific concepts and processes.

Students are required to learn English and German since most of the textbooks are in these languages. Of 160 students who enter as freshmen, 125-130 graduate; 4 or 5 go to college; others leave for poor marks or other reasons. It costs them 5,000 yen to take the exam; 8,000 to matriculate; 19,600 per year for tuition. Five girls are enrolled. The administrators told us that it is hard to get qualified staff, since personnel can get paid better by private industry. A Technical Institute graduate receives about 10 percent less salary when he starts on a job than a university graduate, but he has a two-year start on the other. Since the students were on vacation the day we visited, it was difficult to visualize how busy, interested or apparently competent the teachers are and how the students respond.

Trends in Vocational Education

Up until 1969, vocational schools had a good image in helping economic growth. Since 1969, when many students have gone into secondary school, those with lower grades have been sent to vocational education. The solution is to make high schools comprehensive for diversity of course offerings, but the roadblock is money.

Japan is a small island with a small percentage of its land area which can be used for productive purposes. Its economic survival has depended on production and workers who can do this well. There are indications that Japan recognizes the need for a career education philosophy in its schools such as the recommendation to have more comprehensive secondary schools.

NOTE: A useful memorandum, "Vocational Training in Japan", provided by the Ministry of Labor, follows.

VOCATIONAL TRAINING IN JAPAN

(provided by the Labor Administration; Ministry of Labor)

Background

Production technique in Japan has been showing astounding development under pressing demands to raise productivity and revolutionize technology. As a result, the demand for skilled workers is expected to rise conspicuously hereafter in all fields of industry. Particularly in a country like Japan, which has to feed a large population confined in a small area, the only way to achieve economic prosperity and improved living standards will be to convert the huge labor force into skilled and highly experienced workers.

In fact, there is a big demand for skilled workers in the labor market, the number of positions open for such men exceeding those seeking jobs at the Public Employment Security Offices. Workers sufficiently skilled, however, are few. Since 1961, the industrial circle has complained every year of the shortage of more than one million skilled workers. Considering the decrease in birthrate and the increase in the rate of applicants for admission to a school of higher grade in the post-war days, there is a prospect of real shortage of labor force in near future.

For this reason, it has become increasingly important from the standpoints of industrial and labor policies to effect the smooth supply of skilled workers by improving the quality of the labor force through vocational training. Such a measure is also vitally necessary for stabilizing the employment in the days of the change of industrial structure and the technical innovation.

The current outline of vocational training under the Vocational Training Law of 1958 is described below.

Public Vocational Training

Public vocational training is carried out by the General Vocational Training Centers established by the prefectures, the Comprehensive Vocational Training Centers and the Institute of Vocational Training established by the Employment Promotion Projects Corporation, which functions under and on behalf of the Labor Ministry, and the Vocational Training Centers for the Handicapped established by the Labor Ministry and operated by the prefectures. Public vocational training is also conducted by towns and villages and trade unions which have obtained the approval of the Labor Minister.

The General Vocational Training Centers are the facilities which provide job-seekers with basic knowledge and skills necessary for acquiring a job, and such Centers total 316 throughout the country. The total number of trainees is annually 81,695. Training subjects cover 98 types of occupations connected with metal processing, manufacturing of electric apparatus, and construction. The training period is from three to 12 months.

The Comprehensive Vocational Training Centers are the facilities which provide employed workers and job-seekers with specialized skills, and such Centers total 69 throughout the country. The total number of trainees is (in 1968) 14,360. Training subjects cover 32 types of occupations connected with metal processing and manufacturing of electric apparatus. The training period is two years.

The Comprehensive Vocational Training Centers, also, offer vocational training which gives ordinary job-seekers basic knowledge and skills, and which aims at the unemployed of middle- and old-age groups and the unemployed coal miners who have difficulty in finding employment. Adding these trainees, the number of trainees in Comprehensive Vocational Training Centers total 39,010 annually.

The Institute of Vocational Training was constructed in Tokyo. The main emphasis here will be on research in connection with vocational training and on the training of vocational training instructors.

There are nine state Vocational Training Centers for the Handicapped in Japan which provide training to those in need of vocational training because of physical defects. These Centers accept 1,520 persons annually who undergo training for one year while living in dormitories. Approximately 25 types of occupations suitable for vocational rehabilitation have been selected. Lightly handicapped persons capable of doing the same work as ordinary people can also receive training at the ordinary Vocational Training Centers.

Public vocational training is conducted according to the standards set by the Labor Ministry. The various facilities established for different purposes are effectively operated in a harmonious and systematic manner, and the rate of employment after completion of training is close to 100 percent.

It should be added that public vocational training is given free of charge in view of its importance in connection with employment policy. Civic livelihood guidance is also given and allowances are paid to the unemployed of middle and old age, the separates from specially designated industries and physically handicapped trainees.

Vocational Training Within Industry

The former system of training skilled workers and supervisors has been coordinated into vocational training within industry. This is a form of training the owner of an enterprise gives his employed workers. The Labor Minister and governors of prefectures and municipalities provide such owners with data and other assistance. They also decide the educational courses, period of training, facilities and other standards deemed suitable for carrying out the training effectively and rationally.

The application of a factory operator for vocational training within industry is approved or rejected on the basis of whether these standards are met. A factory owner who has obtained approval is entitled to the use of training facilities established by the prefectures and municipalities as well as by the Employment Promotion Projects Corporation. He can also utilize the services of training instructors dispatched to his factory and obtain textbooks and teaching materials.

Vocational training within industry in Japan is oftentimes difficult to undertake because of the many small and medium sized enterprises which are incapable individually of providing proper facilities or training personnel. To overcome this obstacle, joint vocational training is recognized.

This can be done by an organization formed by small and medium sized enterprises in the same industry or by a group of owners. Such a body may obtain official approval similar to that obtained by an individual owner and may also enjoy the same benefits and conveniences. A joint vocational training organization which gives approved vocational training is entitled to a subsidy from the prefectural and national governments to cover part of its expenses.

In principle, vocational training within industry covers occupations in the secondary industries. Types of work which require over 3,600 hours of training in order to become skilled are selected. The number of such occupations is 197 at present.

A big percentage of vocational training within industry includes supplementary training as well as retraining so that a force of highly skilled workers and foremen can be built up.

The Labor Ministry which used to provide technical assistance in the training of supervisors has transferred these functions to the prefectures and municipalities and to the Employment Promotion Projects Corporation. The objectives and substance of the training program have been greatly expanded without being confined to the TWI formula.

Vocational Training Instructors

In order that an all-round vocational training program show results, the persons in charge of training must be well qualified. It is also necessary to standardize the quality of people in charge of training by having them undergo public vocational training. For this reason, vocational training instructors must, as a rule, obtain a permit from the Labor Minister.

Trade Skill Test

The purpose of the trade skill test is to enhance the worker's will to learn skills, ensure efficient operation of various training, and thus to elevate the status of workers and raise the skill level in the Japanese industry.

The test is classified into the first and the second grade for each trade in respect of practice. The first grade test is conducted by the Minister of Labor and the second by the Prefectural Governor.

The trade skill test was inaugurated in the 1959 fiscal year, and it was given in 54 types of occupations until the 1967 fiscal year. The aggregate number of applicants and those who passed the first and second grade tests are about 446,000 and 201,000 respectively. In regard to the trade skill tests and the future, a policy will be adopted to publicize and enlarge the trade skill tests by strengthening the cooperation with private agencies.

Participation in International Vocational Training Competition

In 1962, Japan participated for the first time in the International Vocational Competition, which had started in 1950 as vocational skill competition for young workers mainly in European countries. Prior to the participation in the sixteenth International Vocational Training Competition in 1967, the prefectural and national competitions were held to select the candidates for 20 types of occupations. The successful candidates obtained 5 gold medals, 7 silver medals, and 2 bronze medals.

International Technical Cooperation Activities

As international technical cooperation through vocational training, the Ministry of Labor has been actively receiving trainees from the developing countries, dispatching vocational training instructors to those countries, and helping the establishment and management of overseas technical training centers.

(1968)

THE FUTURE OF WORK IN JAPAN; SOME IMPLICATIONS FOR EDUCATION
(by Charles Taylor)

A 17-day tour of a country as rich and complex in history and in everyday life as Japan is hardly a sound basis for substantive observations on questions related to the future of work. We had little opportunity to observe Japanese workers in what might be described as typical work settings that cut across the variety of Japanese industries. Our most direct contact with Japanese industry was our visit to the Sony plant in Atsugi. However, even in that setting, one got the feeling that there was not very much "Japanese" about the set of conditions which defined the world of work for the employees of Sony. In fact, the plant appeared similar to modern electronics manufacturing facilities in the United States.

Certain factors that became obvious to us from the very moment we arrived in Japan (pollution, massive numbers of cars, physical congestion, etc.) indicated to us that industrialization, that "mover and shaker" of change throughout the world, is indeed shaping Japan. In the midst of the societal ailments which were more immediately apparent it was difficult to grasp a real understanding of what some of the positive effects of the tremendous pace of Japanese industrialization might be. Descriptions that we had all read regarding the amazing effectiveness of the Japanese economy in many ways were rendered meaningless because of our super-sensitivities to the quality-of-life issues which are now increasingly dominant in the American discussion of the value of increased industrial pursuits.

The escalated lessons in Japanese history which we received through a variety of excellent seminars with Japanese scholars demonstrated convincingly that industrialization and the escalated rates of economic growth that it stimulates have both positive and negative effects on society. The industrial development which was set in motion in Japan after 1945 proved effective in returning the Japanese economy to the level of pre-war averages. Subsequent five-year plans for the growth of the Japanese economy, the first adopted in 1955, had as their initial objectives full employment and a favorable balance of international payments. These objectives could not have been achieved without the economic growth in the particular dimensions that have characterized the expansion of the Japanese economy over the past twenty years. The projected rate in the first five-year plan was 5.0%. In 1960, at the end of this plan, Japan's actual growth rate was 9.1%. This pattern of considerable discrepancy between the projected rate of growth and the actual rate continued throughout 1970.

Industrialization and the concomitant economic growth represent principal sources of economic, social and value change within Japanese society. An example is found in the effectiveness of the Japanese economy in achieving full employment. One result of the full employment strategy was a labor shortage. The thousands upon thousands of small enterprises, which are particularly vivid in Tokyo, represent a kind of monument to the dual character sometimes attributed to Japanese society. The heavy manufacturing industries that play a large role in Japan's economic boom are by definition labor-intensive. However, the tradition of enterprise for a great number of Japanese people is much more related to what we would describe

in the United States as "mom and pop" businesses. The fact that many Japanese people cling to the tradition of small enterprise contributes to the lack of sufficient movement into manufacturing areas where labor was needed.

Full employment has been achieved under a rather unique set of labor-management relationships in Japan. One might expect that in a situation where there is a labor shortage that a seller's market would evolve. However, this has not been the case in Japan. By and large, Japanese industries have adopted a program of lifetime employment. In the past, a young worker who took a position with an industrial firm would expect to remain with the same firm for the rest of his working life. The labor union model in Japan is essentially restricted to a single company. There are no major industrial labor unions whose membership cuts across companies involved in the same or similar industries. Many companies, such as Sony, provide what appear to be excellent benefits for their employees. For example, the Sony plant which we visited has a high school, a day nursery, living quarters, and a variety of social and recreational facilities for their employees. It is customary for Japanese workers to receive quite substantial bonuses twice a year. This is a rather festive occasion on which everyone really knows what the outcome will be and the only real question is 'how much.' This is quite different from the process of developing standard increments and wages over a specified period of time which characterize American labor negotiations.

Much of the generosity on the part of Japanese industrial management is issued in a rather paternalistic or "company-town" fashion. Among the most important results of the labor shortage and the peculiar relationships between management and workers have been a tendency toward standardization of wages within an industry and standardization of life styles across Japanese society. This tendency toward standardization is beginning to have some impact on the dual social and economic character of Japanese society referred to earlier. The level of consumption among farm families, for example, was 75.9% of that among urban workers' households in 1960, but by 1970 the level had risen to 95.3%. The number of workers involved in agricultural labor continues to decline and will probably fall below the 10% level within the next 5-10 years. In recent surveys of class identification in Japan, 90% of the respondents indicated that they considered themselves to be members of the "middle class."

The real and potential effects of growth have important implications for many Japanese institutions, including education. During our numerous visits to Japanese educational institutions one of the things that was most impressive was not how different Japanese schools were from American schools but how similar they were in many different respects. Organizationally, their 6-3-3 model, which includes only nine years of compulsory education, is slightly different from the American system. However, in terms of program content, much of what goes on in Japanese schools appears almost like carbon copies of practices in Cleveland, Houston, Los Angeles or many other American cities. The extent to which the language of Japanese educational planners mirrors that of American educators is indicative of a tendency within Japanese society to accept foreign institutional forms with inadequate attention to substance. Emphases on individualized instruction, early childhood education and career education appear to dominate the thinking of Japanese educators in a fashion similar to that prevailing in American discussions of programs for elementary and secondary education. At the higher education level, there is similar concern for numbers of youngsters attending college for whom a university experience may not be the best of all possible alternatives.

Like American schools, Japanese educational institutions will face difficult challenges in the future resulting from changes that are now taking place in the society. Many of these changes have already been noted by those who conduct the economic planning for Japan, and represent major considerations in the new economic strategies now being developed. As was pointed out earlier, economic expansion in Japan proved amazingly effective in terms of accomplishing the objectives of full employment and a balance of international payments.

However, in accomplishing those objectives many aspects of Japanese life, such as housing, security for the aged, assistance for the sick and disabled, were largely bypassed. Japanese economic planners now recognize that for the good of Japanese society it is necessary to redirect the economy in such a way that resources are provided for improving conditions that were not a part of the objectives during the first economic boom.

But, also, they know that it is highly unlikely that present rates of growth could be maintained, even if it were desirable. Many aspects of Japanese economic expansion are now approaching their limits of growth. Productivity levels for Japanese workers have reached approximately eleven times that by comparable measures for American industry. It seems clear that expansion of heavy industry, notably that related to the production of automobiles, has begun to turn toward the down side of contribution to GNP. Such spin-offs as air pollution, traffic congestion, inordinate land costs, and a disarray of industrial facility locations have suggested to some that the economic value of such distractions from the quality of life should not be considered as a contribution to GNP. Therefore, a new concept, described as "Net National Worth" (NNW), has been introduced as an attempt to subtract out from the calculation of GNP those things for which the society must reinvest resources to cure ailments caused initially by industrial expansion or other activities generally considered as contributions to GNP.

As the goals of the Japanese economy shift, so will the kinds of industry used to accomplish those objectives. Much of the discussion which we heard during our study tour indicated that in order to develop a welfare-oriented economy, to participate in the world market in a more meaningful way, and to avoid environmental disaster, it will be necessary to place greater emphasis on the development of knowledge-based industry. While a clear definition of what knowledge-based industry means in the Japanese context is not yet available, it is clear that movement away from the heavy labor-intensive industry is both desirable and forthcoming.

A central problem for Japanese education will be the development of a system which will provide the skills necessary for the changing character of the national occupational profile. Changes in the characteristics of Japanese society that were either the result of industrialization or those which occurred simultaneously have already produced some discrepancies between the nature of Japanese educational programs and Japanese life. For example, much of Japanese education at this point in time is geared toward what might be called, in American pedagogical terms, "the self-actualization of the individual." However, much of Japanese society continues to be group-oriented in a social sense, and in an economic sense centrally motivated by concerns for material affluence. Thus, it occurs to me that the future challenges for Japanese education will be similar to those faced by Americans. First, it will be necessary to develop an educational system that can help people learn skills that are in demand in a changing labor market. Perhaps more important, however, will be the

added responsibility of schools in Japan to help the young and old alike not only to learn to make a living but to learn to live in an increasingly complex and changing world.

References

In addition to the information obtained from the seminars, material relating to the questions of work and education was found in the following sources:

* "A Changing Japan in a Changing World" by Isamu Miyazaki
* 1971-72 Economic Survey of Japan, published by Japan Times Limited
* December 1972 issues of Japan Economic Journal

CULTURAL EDUCATION IN JAPAN
(by Jean Chen)

Introduction

The ideas expressed here are based upon the opportunities to visit schools, museums, theatres and galleries, and to interview people working in areas related to cultural education made possible through the Educational Staff Seminar and the Japan Center for International Exchange. From these visits and interviews, examples have been chosen to illustrate the importance of the role of private enterprise in developing Japanese cultural education facilities.

Not only does private enterprise assume a major role within Japanese cultural life, but it is the only source of support for innovation within the cultural fabric. It contributes in ways that other sectors of the Japanese community are not organizationally or financially able to undertake. The conscious commitment of extensive company resources, the magnitude of projects undertaken, and the spectrum of those activities represents a striking feature of the role assumed by private enterprise within Japanese cultural life. The governmental sector is concerned solely with the support of the traditional, Japanese cultural arts. To my knowledge, there is no non-profit foundation support for cultural education or enhancement.

This contrasts sharply with the basis of support for cultural activity within the United States. First, private enterprise has not assumed a significant role in the cultural life of the United States. This role has traditionally been left to the artist, the government, and the philanthropy of private individuals. In part, this difference in the role of private enterprise within the cultural fabric of the two countries arises from the marked difference in the nature of private enterprise within the two societies. Within a paternalistic society, like that of Japan, it is not surprising to find that the social consciousness of private enterprise leads to its support of cultural education facilities. Business-supported facilities benefit the employees and provide for the maintenance of culture within the society. On the other hand, U.S. corporations within the private enterprise sector have traditionally been responsible only to their own stockholders. There has not been a durable tradition of social consciousness on the part of American corporations.

However, one has the impression that the support the expansion of cultural arts facilities by non-profit organizations has not developed in Japan as it has in the U.S. Organizations such as the Ford Foundation, Carnegie Corporation, National Endowment for the Arts and Humanities, State Arts Councils, and the National Museum Act, administered by the Smithsonian Institution, have enabled independent artists, small theatre groups, museums, neighborhood workshops, music groups, and dance companies to compete for funds which are given relatively free of restraints. Within the U.S., the expansion of contemporary and experimental public offerings in schools, museums, and other facilities has, in part, been dependent on the support of the non-profit foundations.

An aspect of the bias expressed in this report should be commented upon. The writer was especially interested in the delivery of cultural education involving discovery techniques, for example, the techniques and opportunities which emphasize discovery through exploration with one's senses. The situation which best exemplified this method of education was at the Hakone Open Air and Art Museums.

Types of Cultural Education Facilities and Activities Supported by the Profit Sector of Private Enterprise

It is the primary objective of this paper to illustrate the scope and magnitude of the role assumed by private enterprise in the support of Japanese cultural education facilities. Interviews with four different corporations have been selected to provide an overview of this role. Interest in the profit sector of private enterprise, as an effective initiator and a partner in the support of cultural and social activities in the community, may lead one to examine the newspaper companies of Tokyo as a source of ideas and experience.

Interviews with the Asahi Newspaper staff and verification by Ms. Emily Seaman, Art Critic of The Japan Times, convinced me of the non-profit nature, quality of educational experiences and long-term investment to this cause, provided by the Asahi, the Mainichi and Nihon Keizai newspapers.

A. The Asahi, circulation 10,000,000 copies daily, designates a full-time staff of 40 professionals (many are journalists), and 30 assistants to function in the Cultural Projects Section as promoters, advisors, planners, advertisers, financial managers, and initiators of cultural projects. The function of reviewing projects is served by another section of the newspaper. It is important to make this distinction, since the newspapers in the U.S. clearly do not have anything similar to the Japanese cultural projects section.

Along with other major newspaper companies in Tokyo, the Asahi has been active in this role for approximately 15 years, and feels it is natural for a newspaper to assume the responsibility of deciding upon and stimulating Japanese interests by promoting a variety of cultural education events. The decision to educate the society about international cultures and the commitment to the national interest may be witnessed by the recent importation of singers and table tennis players from the People's Republic of China. The newspaper's professional awareness of the governments' desire to strengthen diplomatic relations between the two countries is applied to cultural exchanges which provide social opportunities for the politicians to meet and build public interest in the possibilities resulting from future meetings on international relations.

For an American, it was interesting to note that the aggressive reporting of news may be distinct from a newspaper's support of contemporary cultural education related to political activity. Some of the projects undertaken by Asahi include:

> Financial support for the exhibit of the statue of Venus from the Louvre Museum in the Tokyo and Kyoto National Museums.
>
> Arrangements for exhibition of treasures from the Tomb of Tutankhamen (Egypt) in Japan, England, France and Eqypt in 1965.
>
> Contribution of space, lecturers and arrangements for weekly public lectures in Tokyo.

B. The Fuji Broadcasting Company supports and administers the Hakone Open Air and Art Museums which feature contemporary sculpture and other arts. This museum represents a startling, innovative effort to provide an environment that emphasizes the individual expression of the artist.

It is important to the learning environment that a feeling of comfort with the spaciousness of this outdoor museum be established for the viewer. The design accomplishes this and continues to be effective in stimulating one to venture into and remain in the spaces. This movement of the observer is essential. As one explores and views the sculpture and the land along the

paths, promenades and plazas, the realization that there are more perspectives to discover heightens one's interest in searching further to enjoy changes in shapes, sizes, and the natural environment. These are audience responses to the design of this museum environment, which were programmed into the plans and intended to create an interactive setting.

Perhaps, there is difficulty in describing the dynamic quality of this museum, but I believe that it provides a superior educational experience which broadens one's view of the potential of a museum setting. For example, guides were minimally used. One was not distracted by labels, large visiting groups led by guides, audio-visual equipment, orientation labels, directional indicators, or exhibits which did not seem related to the whole museum or a theme. The fact that the visitor is not immediately aware of the deliberate contouring of the land, is a compliment to the sculptor/planner Bukichi Inoue. As in a traditional Japanese garden, we are primarily aware of the feeling of harmony we have with the earth. One sees reflections of clouds, trees, and hills as one views the sculpture and is delighted by the combination of natural and man-made textures. Respect for the natural environment, as evidenced at this museum, has been an ageless concern of the Japanese and is based in the Shinto religion. The use of contemporary design to relate people with the land and with art occurs with the use of a suspension bridge, a garden-maze dug into the ground, and a playground sculpture for climbers.

During a privately arranged interview with Mr. Shigeru Mitsumura, Senior Executive Vice-President of the Hakone Open Air and Art Museums, Ronay Arlt and I were impressed with a description of a poetry and sculpture exhibition, where each art form enhanced one's appreciation of the other art form. This exhibit, "Image of Man in the Contemporary Work," brought works by internationally recognized sculptors to Hakone. The Fuji T.V. Broadcasting Company, which supports and administers this museum, commissioned Japanese poets to respond to these sculptured works. Their use of the media to promote, educate, and publicize this event is a fine example of the of the profit sector of private enterprise using their skills and finances to continually experiment with ways to provide cultural education on a mass level.

The Fuji T.V. Gallery Company, located in the Fuji T.V. Building, is larger than the average city gallery in Tokyo. This gallery, like the Hakone Open Air and Art Museums, is supported by the Fuji T.V. Broadcasting Company. The exhibit we saw in this gallery consisted of a one-man show by Gaston Petit, a Canadian-born artist who had studied Sumi-e and calligraphy in Japan.

C. The Paper Museum. The findings of Laurence Vail Coleman in his 1943 book, Company Museums, published by the American Association of Museums, Washington, D.C. are, perhaps, as true for 1973. The book describes this type of museum as one which is frequently engaged in the specialized collection and exhibition of things which relate to the company history and development. Often the company museum is run by the engineering or advertising department. The space utilized by many of these museums is often limited to one ill-lighted, architecturally bland room off the main lobby, on wall space in the executive offices, in exhibition cases in the library or in basement vaults.

In Japan, we witness a different development of company museums in which the identity of the museum is preserved and is not to advertise or record the business.

The Japanese paper company's museum deals with the technological development of papermaking and fully occupies a converted company warehouse. The director of this museum, a former employee of the paper company, now in his 80's, described his years of employment. Rita Eisenberg and I were given a high-light tour of the displays of the antique processing machines, the stages of papermaking, and the development of a synthetic paper, "Q per", made from kerosene and oil. We learned of his efforts to establish a museum which would educate the public and be a legacy of the company's contributions in the field.

His concern for a museum, which used educational displays to organize the history of the company, may have led to a meaningful position for this man after his retirement from the company. We saw rooms of products, exhibiting the variety of industrial and general uses of paper, along with a library facility and a large recreation space which are part of this museum. When asked about formal educational programs, the director spoke with pride about the summer workshops in papermaking for students and parents and the importance of firsthand experience as a stimulant for further learning. One might ask how many U.S. company museums provide educational experiences on a regular basis.

D. The Suntory Museum of Art. The museum occupies 15,000 square feet and contains a collection of traditional Japanese art works, a library, and a tea ceremony area. The collection of art objects, started by the president of the Suntory Whiskey and Beverage Company, is displayed in a traditional manner. We might ask how many U.S. company museums concern themselves with using museum exhibit techniques. The displays and environment of this museum succeed in its attempts to preserve the ideal beauty of ancient Japan. It is not a museum which speaks of the complexities of a modern, technological Japan.

The orientation greeting states to the visitor that the museum addresses its collection to "The reperception of Japan's art and culture from a modern viewpoint." To achieve this, one would expect to find some reference to contemporary issues and problems in the exhibit. Since this did not exist, we believe that this failure reflects the inability of the staff to fulfill this commitment, a different standard of the accomplishment of this goal, or the inherent difficulty involved with using highly ornamental screens, lacquerware, costumes, and glass objects which strongly convey traditional viewpoints of the Meiji, Edo, and Kamakura Periods.

A Cultural Education Facility Supported by the Non-Profit Sector of Private Enterprise

The Kumo Theatre Group. My interest in learning of theatre efforts in Japan was somewhat satisfied by Kabuki performances and discussions with Ms. Yumi Nakanishi of the Kumo Theatre Group. During this interview, we discussed the activities of the "new" Leftist Theatre Groups which developed in Japan approximately 50 years ago, when there was a nationwide interest in the Soviet Union. Some of these groups, the Actor's Theatre (Haiyuza), the People's Theatre (Mingei), and the Literary Group (Bungakuza), along with the Kumo Theatre Group, are concerned with the adaptation of the German Expressionist for the Japanese audience. Their choice of plays deals with man's social needs and are directed at the education and problems of the middle class, the laborer, the office worker, and the student. Ms. Nakanishi stated that efforts to bring these plays to the provinces met with very conservative reactions.

One problem faced by this, and perhaps other non-profit theatre groups, is that they can afford and receive little publicity in a country where other competing events may be heavily publicized. Thus, the Kumo Theatre Company is not well known and experiences difficulty in generating a wide audience. The Kumo Theatre Group, of 10 full-time staff members, manages a schedule of one performance of a modern Japanese play twice a year for a two-week run and a translation of a Shakespearean play for a similar duration. When compared with an active, local repertory company, such as the Arena Stage, we recognize that the Kumo Theatre Group evidently cannot finance a comparably active season, nor does it have similar audience support.

However, the Kumo Theatre Group supports another cultural education facility, a one-year drama training school for 50 high school and university graduates. Construction is underway to expand the facilities for the theatre and school, using funds accumulated from donations, admissions, a T.V. production business and solicitations.

Museum Facilities Supported and Administered
by Government Organizations

Tokyo National Museum of Art and Kyoto National Museum of Art. It was useful to discuss, with Mr. Shigetaka Kaneko, the nature and limitations of the 1951 Japanese Museum Law which governs municipal, prefectural, and private museums. In reading a description of this law in "Museums in Japan," a report by the Japanese National Commission for UNESCO, 1960, found that government subsidy is granted only to public museums which are defined as those established by the Boards of Education of Prefectural and Municipal Governments. This means that numerous cultural education facilities, established and supported by private enterprise, would not qualify for benefits under this law, since they do not fulfill the definition of "public museums."

The National (Art) Museums of Tokyo, Kyoto, and Nara receive a budget from the National Government and are under the jurisdiction of the National Agency for Cultural Affairs. This agency was responsible for creating the National Research Institute, an administration, preservation, exhibition, and research institute for cultural properties. It is my impression that these three museums are primarily concerned with research, documentation, and repair and not public education through direct contact with the public.

The main thrust of public education, in these three national museums, is under the charge and direction of the Ministry of Education. This may explain the fact that the three education officers of the Tokyo National Museum are in the Public Relations Department, which with an additional 16 staff members publishes "educational materials" for public distribution. The education staff offers public lecture courses during the summer, occasional Saturday afternoon tours, films and slides during special exhibitions, and traveling exhibits. The curatorial staff offers advanced lecture courses which are limited to teachers and museum members. Compared to the educational offerings of some American art museums and art centers, these activities represent a minimal idea of the education responsibilities of the museum.

The pattern and display techniques at these museums have stablized and, judging from observation, one does not expect to see rapid changes in this area. Explanations about exhibitions are provided mostly by labels. Commentaries and guides, developed in accordance with the educational background of visitors, is limited. If one is looking for innovative museum environments and exciting concepts of education for special groups which provide a better understanding of the objects from a contemporary viewpoint, one may be disappointed by these museums.

The visits made by the group to the Tokyo and Kyoto National Museums were most enjoyable as a traditional view of Japanese art and culture of the past. Methods to teach beyond the general level of visual appreciation most people experience were lacking.

The Communications Museum. Although this museum may not strictly conform to a cultural education facility supported and administered by the government, it is interesting in that it is jointly sponsored by government and private enterprise. This four-floor museum, opened in 1964, is sponsored by the Ministry of Posts and Telecommunications, the Nippon Telegraph and Telephone Public Corporation, the Japan Broadcasting Corporation, and the Kokusai Denshin Denwa Company, Ltd. It is a museum which provides the public with a better understanding of the present state of the communication arts and broadcasting services.

Many communication devices are used in conveying information to the viewer. Tape recorded explanations, movable displays, electrically active exhibits, a "play corner" where one may observe demonstrations of telephone calls made via satellite and submarine cable, and an experimental T.V. studio, designed

for audiovisual education, and an audition room for listening to stereophonic FM broadcasts and viewing motion pictures are some of the educational adventures found in this museum. One could find exhibits which included sounds and opportunities to manipulate equipment in most of the areas covered by this museum. The museum is divided into areas called:

(1) Changing Modes of Communication
(2) Diorama of Postal History
(3) KDD Submarine Cable Corner
(4) Panorama of Telephone and Telegraph Facilities
(5) NHK T.V. Studio Corner

Judging from the size of this museum, the scope of the exhibits, the equipment available, the technical expertise needed to manage and plan these exhibits, and the funding must be extensive. The facility is designed with a concern for children. One exhibit, filling a portion of the lobby at the time of my visit, contained artworks created by children describing some of their experiences with various forms of communication in the museum and in their contemporary world.

Once again, we find a successful environment for groups, adults, and children. Part of this success may be attributed to the resources and skills contributed by private enterprise.

Note: Ms. Chen has given ESS a comprehensive list of persons knowledgeable about the arts in Japan, as well as a listing of museums and other institutions visited by her. ESS will be pleased to provide copies upon request.

STATUS OF WOMEN IN JAPAN
(by Ellen Sudow)

Late one evening shortly after our arrival in Japan, a few of us were walking back to our Tokyo hotel after a dinner in the nearby Akasaka area. We passed a group of middle-aged businessmen piling into their automobile in front of a private club where four or five equally middle-aged geishas were enthusiastically waving farewell. This scene was just the first, if not the most symbolic, reminder of the aging but still existent Japanese geisha culture which continues to reinforce notions of social and intellectual subordination of Japanese women to men.

Social, political, educational and economic manifestations of this culture exist today despite the 20 years which have elapsed since passage of the post-World War II Japanese Constitution proclaiming: "All of the people are equal under one law and there shall be no discrimination in political, economic, or social relations because of race, creed, sex, social status or family origin." (Article 14). During our two weeks in Japan we were made cognizant of these manifestations through our own observations, through informal discussions with young Japanese women, and through our encounters with Japanese policymakers. In addition, two of us conducted a 2½-hour interview with Japanese suffragette and ex-Diet Member Fusae Ichikawa, and met with officials of the Women's and Minor's Bureau of the Ministry of Labor and the President of the Womens Lawyers Association.

As a result of these experiences, we left Japan with a picture of social inequality between the sexes. Article 24 of the Constitution states: "Marriage shall be based only on the mutual consent of both sexes and it shall be maintained through mutual consent of both sexes and it shall be maintained through mutual cooperation with the equal rights of husband and wife as a basis." Yet, we witnessed a middle-aged couple emerging from their Kyoto home and walking down the street--the man first and the kimono-clad wife following a respectful distance behind.

And despite the increasing number of women in the Japanese workforce (over 20 million, making up 40 percent of the total workforce), women workers as a whole receive less than half the wages received by men. Over 72 percent of these women are either in clerical jobs, work as operatives, or are service workers. Although 41 percent of these workers are married and a large percentage of them have children, there is only a minimal system of child care to provide for their needs. As one member of the Education Committee of the Diet stated, it will be "at least ten years" before meaningful day care legislation is implemented.

The status of women under the Japanese educational system suffers from the same schizophrenia as under other institutions. While women constitutionally have equal access to educational opportunities, there is clearly a dual school system of higher education for women and men. It is not clear, however, whether this duality is de jure or de facto.

Education is compulsory for boys and girls between ages 6 and 14. Soon after, the rate of women's attendance in school begins to decline. While 78 percent of boys go to upper secondary school, 76 percent of the girls attend. While 27 percent of the male population attends higher educational institutions, only 11 percent of the women do.

Despite the fact that female enrollment in these institutions has increased 18-fold between 1950 and 1970, three times as many men (1.6 million) as women (459,000) enroll at this level. Only 28 percent of the nearly 2 million college students are women.

Approximately half of these women enroll in 2-year junior colleges. About 83 percent of these junior college students are women, while only 18 percent of those attending 4-year institutions are women, and only 2 percent of those attending technical schools are women.

Participation rates say little about the actual substance of the education and its effect on women. While we observed home economics classes full of girls and science classes full of boys, we were unable to collect hard data on whether or not sexism exists on the elementary and secondary education level in either curriculum, textbooks, or other aspects of education.

Statistics relating to higher education underscore the heavy emphasis on traditional courses for women. For example, 40 percent of those attending 2-year schools majored in home economics, while 21 percent majored in teacher training. When the Director of Research and Development for the Ministry of Education was asked whether or not there was any pressure to revise or upgrade curriculum for 2-year colleges, he answered "no" and stated emphatically that the present curriculum is in accordance with "the wishes of the parents".

Even women attending 4-year colleges tend to gravitate toward traditional "women's" courses--37 percent majored in literature and 19 percent majored in teacher training. Few women were enrolled in courses of law, politics, economics, engineering or science.

Education policy is determined by the Ministry of Education, which does not appear to be attuned to changing roles of women. In our interview with Fusae Ichikawa, she emphasized that education policy reflects the attitude of conservative party members toward women which she characterized as a strong belief that women belong in the home.

Women have little direct power to influence political parties and/or government policy. Only two women have ever been appointed to the cabinet. Today, seven women hold seats in the 486-member House of Representatives, while 14 sit in the 250 member House of Councillors.

During our brief visit we learned that although there are women who have worked diligently for women's rights and are concerned about their future role in Japanese society, there is no movement in size and scope comparable to "women's liberation" in the United States, and little evidence that the massive public "consciousness-raising" which has occurred here in recent years is imminent in Japan.

SOCIAL WELFARE SERVICES
(by Marlene Halperin)

Although most of our ESS site visits focused on educational facilities in Japan, we were fortunate to meet with Mr. Mamoru Tsumashima who talked with us about social welfare services in his country. Mr. Tsumashima's immediate responsibilities are in the area of International Affairs for the Ministry of Health and Welfare. However, with reliance on the excellent report: SOCIAL WELFARE SERVICES IN JAPAN:1972, prepared under the supervision of the Ministry of Health and Welfare of Japan, Mr. Tsumashima satisfied much of our curiosity regarding Japan's social welfare system.

Japan's social welfare services include Public Assistance, Child Welfare, Welfare to the Aged, Welfare of the Physically and Mentally Handicapped, Aid to Fatherless Families, and Disaster Relief.

Public Assistance is viewed as indispensable in carrying out Article 25 of the Constitution which establishes the responsibility of the government to provide all citizens with a minimum standard of living without discrimination due to religion, race, or any other reason. Financial need is the criterion for eligibility.

Child Welfare legislation, enacted in 1947, extended the scope of protection of children beyond financial assistance to include provision for mental health programs. The Children's Allowance Law, enacted on January 1, 1972, stands as the portion of the Social Security system available to children under 15 years of age who belong to families with three or more children. 3,000 yen a month (about $10) is granted to the person who cares for and lives with the children.

Welfare of the Aged legislation was enacted in 1963 as a result of the sharp increase in the number of aged people in the population. Along with the rapid social and economic change in the country, many older people had serious difficulty adjusting to their environment. In addition to financial assistance, the Welfare Office designates a staff member to be responsible to provide guidance to families and individuals having problems associated with old age.

Welfare of the Physically and Mentally Handicapped, enacted in 1949, is directed toward rehabilitating the vocational or social ability of the physically handicapped in the area of sensory and motor functions and, since 1967, with handicaps in heart and respiratory organs. It does not grant financial aid. The Severely-Mentally-Retarded Child Rearing Allowance Law was enacted in 1964 to give financial help to parents taking care of their children under 20 years of age who suffered from severe mental retardation. For the mentally retarded, 20 years of age and over, disability welfare pension by the National Pension Law was granted in 1968.

Welfare of Fatherless Families provides for the protection of widows with children under 18 years of age. In addition to financial assistance, these families may benefit from day care facilities, recreation centers, employment and vocational guidance services, reduction of taxes, public housing and government loans. Also, the Welfare Office assigns consultants to counsel widows and unmarried mothers in matters of employment and vocational planning.

Disaster Relief is recognized to be essential in a country such as Japan which is frequently stricken by typhoons, floods, and earthquakes. The Disaster Relief Law, enacted in 1947, provides some effective measures for emergency relief and rehabilitation with the cooperation of local government agencies, the Japanese Red Cross and other voluntary agencies. This law does not provide for measures to repair damaged property nor does it provide the monies to meet the needs which are caused by the disasters.

Little or no mental health treatment is available for welfare recipients. Need is defined as financial need and not emotional need. Persons in emotional stress cope as best they can on their own resources. Social welfare counsellors direct most of their efforts toward financial needs (employment and vocational counselling). For coping with other than financial difficulties, one would turn for help to one's family, supervisor, or marriage arranger. Japan now seems to be more willing to accept the good mental health of its population to be as essential a national asset as its good physical health. Slowly, but in a rising trend, mental health services are being made available to the Japanese people.

WORK AND WELFARE
(by William Spring)

For one whose job in the States buries him in the statistics and the confusion of the poverty and unemployment dilemma, Japan is an unsettling experience.

In the States, teen-age unemployment runs generally at 15 percent, jumping to over 30 percent for inner-city youngsters. In Japan, the official statistics tell us that there are 1.6 jobs for every school graduate--and virtually everyone graduates from high school.

So, instead of our panoply of programs to keep youth off the street, out of trouble, motivated and trained, major Japanese firms compete with one another for rural area high school graduates, some even offering incentives to kids in their junior year to commit themselves in advance. (Sort of like NBA teams trying to whistle Bill Walton out of UCLA before graduation.)

Americans have been struggling for years to establish a modest public service employment program to provide jobs for those unable to catch on in the regular job market. A modest program was begun in 1971--when some 5 million Americans were unemployed--but it is now scheduled to end--since we now have "only" 4.4 million unemployed. At its height, the program provided some 180,000 jobs. Japan, with unemployment running at one percent--about rock bottom for unemployment in a society where people are free to quit when they want to seek better employment--has a flourishing public service employment program, with some 168,000 employed as of last December. These are mostly older workers in the depleted mining areas of Kyushu but include many older workers in Tokyo as well.

The welfare figures for Japan, as described by Mr. Tsunashima, head of the International Affairs Division of the Ministry of Health and Welfare, indicate that very few Japanese are on relief, 70 percent of those for health reasons. In 1971, 1.3 million Japanese were on public assistance out of a population of 100 million. The American welfare equivalent is around 15 million people or 7.5 percent of the population.

Relief levels are not sumptuous: ¥44,364 is the top payment in Tokyo (the highest cost and highest payment area) for a family of four, or $147 a month at the December exchange rate of ¥300 to the Dollar. By way of comparison, that figure may be related to the average worker's wage of ¥80,000 a month, or $266.

I asked a friendly bureaucrat at the Labor Ministry how much it cost ordinary, middle-class people to live in Tokyo. He replied that his sister's daughter was living in town with a family and they (the sister and her husband) were paying ¥16,000 a month as a fair share of household expenses. That would indicate that simple food, shelter and utilities for a four-member family costs something like ¥64,000 per month.

The Welfare Ministry official said that relief was available to working families--but only if their incomes fell below the ¥44,364 cut off. He also said that whereas people had in the past been ashamed to go on relief, now "people are strong enough psychologically to claim relief as a right." It's a small world.....

Japan also has a child allowance program paying $10.00 a month beginning with the third child and lasting until its 15th year.

I am very tempted to credit what I observe as very high national morale among the Japanese to their achievement of full employment. One thing every traveller comments upon is the friendly eagerness of the taxi-drivers, waitresses, train attendants and shoe-shine boys to do their jobs well and in a pleasing manner. You can even get a spit-shine in the mezzanine floor of the Akasaka Tokyu Hotel from a man who works with the 'elan of a gold-medal professional.

This morale is maintained in the face of rather low levels of investment in such necessities as housing. Prime Minister Tanaka, in his book Building a New Japan, points out that:

> "The average space per household in privately leased houses is 153 square feet.....(42 percent of Tokyo's householders rent)... Subtracting the necessary space for furniture and appliances, this leaves barely enough space to sleep. The vast majority use common dining facilities and toilets, making the living conditions extremely poor."

When the family goes out of doors to find a little space and quiet, things are not much better. New Yorkers have 207 square feet of parks for each citizen, Londoners 245 and Berliners 266. The official Japanese target is 65 square feet. But just now they enjoy only 13 square feet of park for each resident in Tokyo. (All figures from Mr. Tanaka's book)

Tokyo's traffic jams and air pollution are legendary. Average speed on Tokyo's streets is calculated to be only 12.5 miles per hour, cut to 5.6 during morning and evening rush hour and as slow as 2.5 miles per hour in the busiest parts of town.

There is political protest. Most large cities are now led by socialist or other left wing mayors. The percentage of the vote going to the centrist Liberal-Democratic Party is steadily eroding, based to a large extent on "quality of life" issues. But the social problems we associate with "poverty" are simply not in evidence.

I asked a Japanese friend, met the previous year, to take me to a really poor part of Tokyo. At the time we were way out in northwest Tokyo, and she said, "this neighborhood will do as well as any." We saw the same welter of tiny shops and shabby, insubstantial looking four-story buildings one sees everywhere in Tokyo, but the whole scene filled with a sense of life and good cheer, busy, commercial animation.

She explained that this was a neighborhood where many of the people had only recently come from the country (Japan still has some 17 percent of its workforce engaged in agriculture as compared to only 3 percent of the American workforce. Prime Minister Tanaka hopes to tap these agricultural workers for part-time industrial work by moving industry into presently rural areas, thus solving the problems of over-concentration of the population, pollution and the need for an expanded workforce and balanced economic growth all at once.)

Once in the city, with relatively good paying, steady jobs the new neighborhoods quickly stabilize, various kinds of community committees are formed, and the network of social relationships that hold village life together are quickly re-established in the urban setting.

It does seem ironic that the U.S.--with a 1972 per person GNP of $5500--should be the one suffering the consequences of mass poverty and social disintegration while the Japanese, with a per person GNP of $2950--and far worse conditions of overcrowding, lack of recreation space, air pollution--should suffer less.

Obviously, our difficulties are much exacerbated by racial discrimination and tensions. But it is my belief that the chief explanation of the difference lies in the fact that economic opportunity is, in fact, available to individual Japanese, while it is only a promise to millions of Americans.

Notes: Japanese history is similar enough to Western history: A distinct feudal period (the Tale of Genji tells of a war between two factions in the 12th century, much like the War of the Roses), followed by an attempt to combine a "free enterprise" economy with democratic political institutions. All this makes the Japanese experience seem tantalizingly comprehensible.

However, it is not so easy. Perhaps the transition from Tokugawa feudal rigidity--much more rigid and much longer lasting than our Western feudal synthesis--was too sudden. Perhaps it is because the Japanese religions--Shinto and Buddhist are quite unlike Christianity with its focus on individual guilt, redemption and eternal life.

In any case, the similarities and the differences make the study of Japan--and even a brief visit to that country--an utterly fascinating and stimulating experience.

The Japanese family and the organization of Japanese groups and firms are crucial to understanding what goes on in that country. Can one understand? I don't know. But certain things are clear. Japanese firms have a very different relationship to their employees than major American firms.

First of all, the larger firms--those with 300 employees or more--typically hire workers for life and pay them, more or less, on the basis of seniority. The result--or at any rate one thing that is observable--is that change of manufacturing techniques within the firm (essential in the high technology industries on which Japan's export success is founded) is much easier than in American firms where individual workers have no long-range job security (except where negotiated as with the West Coast longshoremen and where wage scales are tied to specific job skills).

Decision-making within bureaucracies seems to be more of a group activity, an attempt to reach a consensus which the group leader then represents to the outside world, rather than the top guy deciding and everyone else having to fall in line. A kind of participatory decision-making, if you will. Japanese decisions take longer to reach, but are carried out very thoroughly once consensus is achieved.

At the Ministry of Labor--where I went to discuss unemployment and public service employment--I found myself in a situation that contrasted very favorably with what I have found to be the atmosphere at our own Department of Labor. The huge open office space--nearly the whole half floor of a high-rise building--was crammed with desks pushed together in groups of four with tea pots and electronic calculators strewn about among the piles of documents on each group of desks. The workers were often sitting with their shoes off and legs drawn up on the chairs sipping tea while reading documents.

Around the edges of the room, under the windows, were a series of open alcoves formed by couches and easy chairs grouped around a low table. With myself and the translator on the couch, the section chief and his aides took the easy chairs and we spent an hour trying to understand one another's statistical shorthand phrases and labor market programs. It was an atmosphere of great informality, good humored earnestness and openness.

It is my belief that the Japanese have a good deal of practical experience in solving social problems in small group settings that we can learn from as we face the difficulties of "worker alienation" and dissatisfaction in plant and office.

Whether we can learn--or the Japanese have anything to teach--in the even more crucial area of cooperation between different sectors of the society in managing the economy is another question. I suspect that there is a good deal to learn, but I do not know enough to be sure. It is certainly the case that cooperative planning--a series of five-year economic growth plans--involving business and government have played an important role in Japan's steady and spectacular growth since the Second World War.

Now the Japanese are seriously debating the possibility and the practicality of attempting to shape economic growth not only in terms of industrial sectors but in terms of geographic areas as well. This is at the heart of Premier Tanaka's plan to "Remodel the Archipelago". Many--particularly the left intellectuals--are very suspicious of the effort, which can be seen as a "land grab by the giant corporations." Yet, 51 percent of the Japanese people, say the pollsters, would like to see the plan implemented. American economic and geographic development stands in a similar situation, with greater planning essential if growth is not to be the fatal enemy of human happiness.

Finally, a word must be said about the extraordinarily fruitful efforts of those who planned ESS' trip, both American and Japanese. In a very short time we were able to speak with people who ranged from major corporation board chairmen to revered Zen Buddhist priests, to see not only the pollution of Tokyo and the ageless tranquility of Kyoto, but the Hakone resort district as well. From the humane wisdom of Professor Masui to the sophisticated industrial psychology of Professor Takezawa we met the best of Japan. And made real friends as well.

PUBLIC BROADCASTING AND EDUCATIONAL TELEVISION
(by Samuel Halperin)

Some notes on our visit to NHK (Nippon Hoso Kyokai), Japan Broadcasting Corporation:

NHK is a quasi-public corporation now celebrating its 48th year of operation. This public broadcasting network accepts no advertising but, rather, is financed by a "voluntary tax" paid by television set owners. Currently, there are 24 million subscribers paying approximately $1.50 per month for color sets and a $1.00 per month for black and white. It is estimated that 99 percent of the eligible subscribers actually pay their fees--a higher percentage than pay Japanese income taxes. The fees are collected on a house-to-house basis with over 2,000 collectors plus mailmen who receive a commission for the collection of the NHK fees. Subscribers may also pay at their local banks and receive a discount for such payments.

NHK has a staff of 16,000 of whom approximately 8,000 are employed in the Tokyo area. Ninety-seven point five percent (97.5%) of the country's area can receive NHK television signals and more than 99 percent of the country is covered by radio. Some 86 percent of the total households are served by NHK. Approximately 30,000 buildings with four or more stories adversely affect the reception of NHK signals and, currently, efforts are being made to counteract this technical problem.

The budget of NHK is approximately $375 million a year or approximately $4.00 per person, one of the world's highest per capita expenditures.

The educational programs of NHK involve:

(1) direct programming to schools and colleges;

(2) enrichment and cultural presentations for the entire population.

With regard to the former category, NHK broadcasts all subjects required in junior and senior high school. Apparently, there is a strong tradition of reliance upon radio and television in Japan* and a much smaller use of films than in the United States. Cassettes are also being experimented with on some of the isolated outer islands of the Japanese archipelago. NHK also maintains a correspondence high school for isolated persons, the handicapped, and working youth. Approximately 161,000 students are involved in some 78 correspondence programs. Tuition is considered quite low--less than 5,000 yen per course. In part, this is due to a subsidy from NHK.

NHK's course of studies is the same as that promulgated by the Ministry of Education and NHK sees its mission as enriching the curricular decisions made by the Ministry.

The U.S. version of Sesame Street is broadcast in English twice per week without Japanese translation or sub-titles. The program is reportedly very popular in Japan with all age groups. It is viewed as "living language" and entertainment, rather than as an educational program. Approximately one million viewers are believed to watch the program.

During prime time, NHK claims that 25 percent of all viewers watch its programs, 22 to 23 percent of all viewers watch general, commercial, television, and 1 to 2 percent are engaged with educational television.

*The average Japanese above age 10 views television nearly 3 hours daily!

Six hundred and fifty persons work in NHK's production staff. Interestingly, the radio and television staffs at NHK are integrated in their daily work. There is one labor union for all of NHK. Also, personnel are generally trained to work in multiple roles, e.g. as cameramen, reporters, etc. This is done in a single training institute for all of NHK.

Presently, there is rather limited use of cable in Japan, mostly limited to the remote areas. Seven prominent tourist hotels also have cable programs in English. Although there have been experiments in Tokyo and Osaka, the Japanese public is apparently asking why it should pay for cable and pay again for NHK. If this is the case, cable TV does not seem to have much of a future in Japan.

NHK maintains its own technical research laboratory and is constantly expanding the state of broadcasting arts and sciences. Indeed, we were informed that some people complained that NHK standards are "too high" and there had been some complaints in the Diet that NHK does not sufficiently serve "the masses."

A communications satellite experiment is being conducted by NHK in cooperation with International Telephone and Telegraph and Japan Telephone and Telegraph. There are hopes for an Asian Broadcasting Union and NHK seeks to assist developing countries in Asia.

A high point of NHK's achievements was the award of the eighth Japan Prize, a highly coveted international competition for the production of the best educational TV program. NHK won recently with a much-acclaimed work entitled "The Life of the Chicken in Twenty-One Days".

The technological apparatus and capability of NHK which were viewed briefly by the ESS group are exceedingly impressive. The entire system is computerized with all five NHK networks* switched automatically by computer and all resource allocations (e.g. studios, cameras, etc.) made by computer. Computers also schedule the work of the entire television network and twenty-three radio stations. This is done some 60 to 70 days in advance and the claim is that some 3,000 personnel have been saved by the extensive use of computers. Indeed, NHK staff has remained almost constant at about 16,000 employees over the past 10 years despite a general growth in programming and national service.

Some other statistical information:

--NHK broadcasts over 28 hours of radio and 34 hours of TV to the schools, in a total of over 225 programs.
--TV utilization (for same time) ranges from 31 percent+ in the case of senior high schools to 37 percent in junior high schools, 90 percent in primary schools, 81 percent in kindergartens.
--Over 1-3/4 million teachers manuals are published by NHK annually and some 1,700 "research meetings" are held each year for some 300,000 participating teachers.
--Foreign languages instruction broadcast by NHK includes English, French, German, Spanish, Chinese and Russian, in 16 courses (6 TV and 10 radio) and 48.5 hours weekly (14.5 hours TV, 34.5 hours radio). NHK language textbooks exceeding 12 million copies were published last year.

*two radio, one FM, two television networks

KYOTO SCIENCE CENTER
(by Samuel Halperin)

The entire ESS group was welcomed to the impressive facilities of the Kyoto Science Center by Dr. Sakae Shimizu who is the Center's Director as well as a professor of nuclear physics at Kyoto University.

The Center, opened in May 1970, is concerned with the natural and physical, rather than the social sciences. Its major functions are:

(1) the teaching of school children within the ages of compulsory education. Everyday the Center receives classes of science students from the fifth to eighth grades. A total of 60-70,000 students work at the Center each year. On Monday, the Center is reserved entirely for the self-education of Kyoto teachers. In the summer, evening classes are held for high-school students.

(2) the training of teachers, especially during the summer vacation. Inservice development is carried out through seminars, experiments, and the transmission of the latest scientific techniques. Regular Center staff also provide counsel to teachers who have particular scientific problems.

(3) science education for the general citizenry of Kyoto is carried on everyday except Tuesday. Leading scientists deliver public lectures and there are experiments in the household sciences for the women of the city. Every month the observatory puts on an astronomical show.

The Center also fosters a science club in which young people are allowed to study by themselves using the very extensive facilities of the Center.

The Center's total staff is 63, including 26 teachers. Teachers generally work at the Center two or three years and then are returned to their public schools to help spread the technique and philosophy of the Center. (Incidentally, the Kyoto School District has 160 primary schools and 60 junior high schools.)

The Center's budget is approximately $500,000 annually with 60 percent going to salaries and 40 percent going to buses, utilities, and the development of new exhibits. The Center's annual budget is derived from city revenues with perhaps 3-5 million yen received annually as donations from leading industries. Beginning in 1971 the National Ministry of Education began giving the Center 5 million yen annually for the promotion of science. The planetarium, costing 70 million yen, was a gift of Panasonic. The local chamber of commerce also provided a hundred million yen while the city provided municipal land and a total facility costing almost one billion yen. (Approximately 13 percent of Kyoto's total city budget is spent on education. In addition, the salaries of Kyoto high-school and pre-school teachers, as elsewhere, come from the national government and the prefectural level.)

We learned that very few girls apply to study science and engineering. On the other hand, pharmacy and chemistry are widely considered "women's fields" and have extensive female enrollment.

We were interested to find that the ancient capital of Japan, rich in history and tradition, also boasted so progressive a municipal education center with the extensive involvement of the prestigious Kyoto University

and a truly exciting "living museum" where the visitor can develop his or her understanding of basic scientific principles in a clear and entertaining fashion. We were informed that there were similar centers in Kamagawa and Sendai, but that none cover all students attending school under the compulsory education law. The other centers apparently serve primarily teachers. Kyoto, incidentally, is considering developing more science centers elsewhere in the rather large city.

As we toured the well-supplied laboratories and classrooms, watching students engaged in experimentation, we met a number of students who came "on their own" on Saturdays, Sundays and vacations to carry on their interest developed in the regular classroom. Apparently, the Center can serve the rank and file student body of Kyoto only for four or five hours once a year for each of four years. Thus, the optional and voluntary use of the Center by students on their own free time is of major importance for the development of long-term interests and competency in science.

APPENDIX I

Staff of the Japan Center for International Exchange

Tadashi Yamamoto	Director
Kazuo Kojima	Program Officer (in charge of educational programs)
Hiroshi Kamura	Program Officer (in charge of research and documentation)
Reiko Yoshiyasu	Treasurer
Hideko Katsumata	Administrative Assistant
Eiko Kobayashi	Program Assistant
Haruko Minegishi	Program Assistant (in charge of Education in World Perspective)
Yoji Yamamoto	Program Assistant (in charge of research and documentation)
Hiromitsu Nittoji	Program Assistant (in charge of Japan Interpreter)

Japan Interpreter Staff

Tsutomu Kano	Editor
Pat Murray	Assistant Editor

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APPENDIX II

ROSTER OF PARTICIPANTS IN THE
ESS STUDY TOUR OF JAPAN

December 3 - December 20, 1972

Harley Dirks
Professional Staff Member
Senate Subcommittee on Appropriations for
Departments of Labor and Health, Education
and Welfare
(Senator Warren G. Magnuson, Chairman)

Clancy Ohlke
Director
Office of Government and Public Programs
National Science Foundation

Harley Frankel
Associate Director
Office of Child Development
Department of Health, Education and
Welfare

William Spring
Professional Staff Member
Subcommittee on Employment, Manpower
and Poverty
Senate Committee on Labor and Public
Welfare
(Senator Gaylord Nelson, Chairman)

Ellen Hoffman
Research Assistant
Subcommittee on Children and Youth
Senate Committee on Labor and Public
Welfare
(Senator Walter Mondale, Chairman)

Helen Sramek
Special Assistant to
Senator Roman L. Hruska (Nebraska)

Ellen Sudow
Education Research Associate
Democratic Study Group
U.S. House of Representatives

Maureen Drummy
Administrative Assistant to
Representative William Steiger
(Wisconsin)

Warren Eisenberg
Administrative Assistant to
Representative John Heinz III
(Pennsylvania)

Rita Eisenberg
Consultant
U.S. Children's Bureau
Department of Health, Education
and Welfare and
Member, Montgomery County Day
Care Board

Ronay Arlt
Administrative Assistant to
Representative Edward Koch
(New York)

Warren Troutman (and spouse,
Aldene)
Special Assistant to the Associate
Commissioner for Higher
Education
U.S. Office of Education

Barbara Kemp
Education Program Specialist
Division of Vocational-Technical
Education
Bureau of Adult, Vocational and
Technical Education
U.S. Office of Education

Glee Saunders
Education Program Specialist
Division of Vocational-Technical Education
Bureau of Adult, Vocational and Technical Education
U.S. Office of Education

Jean Chen
Research Assistant
Office of Smithsonian and National Museum Programs
The Smithsonian Institution

Therese Mahoney
Education Program Specialist
Teacher Corps
U.S. Office of Education

Dr. Charles Taylor
Associate Director
Academy for Contemporary Problems
Columbus, Ohio

Dr. Roger Levien
Director
Washington Domestic Programs
The Rand Corporation
Washington, D.C.

Dr. Samuel Halperin
Director
Educational Staff Seminar
The George Washington University

Marlene Halperin
Psychiatric Social Worker
Group Therapy Center
Washington, D.C.

SUMMARY

U.S. Senate	4
U.S. House of Representatives	4
Dept. of Health, Education and Welfare	1
U.S, Office of Education	4
National Science Foundation	1
Smithsonian Institution	1
Guests, Spouses	5
Educational Staff Seminar	1
Total Participants	21

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APPENDIX III

A DESCRIPTION OF THE PROGRAM

PURPOSES

ESS is designed to assist professional staff members in the field of education, who are employed by the Executive and Legislative Branches of the Federal Government, to obtain a more realistic understanding of current educational practices and problems and to improve communications between Washington educational staff members and educators in the field. It particularly strives to develop bridges between educational researchers and policy makers so that both endeavors may be enhanced.

ESS seeks to increase staff understanding and awareness of contemporary problems in American education and to supplement their Washington work experiences with a variety of inservice training seminars and in-the-field personal observations. Emphasis in these voluntary and supplementary learning experiences is upon developing broad educational understanding and perspective and a wide exposure to current educational problems. ESS advocates no particular educational policies nor does it take positions on pending legislative controversies.

Stated another way, ESS provides educational experiences to help overcome the gap discussed by John W. Gardner in Self-Renewal:

> "As organizations (and societies) become larger and more complex, the men at the top (whether managers or analysts) depend less and less on firsthand experience, more and more on heavily "processed" data. Before reaching them, the raw data--what actually goes on "out there"--have been sampled, screened, condensed, compiled, coded, expressed in statistical form, spun into generalizations and crystallized into recommendations.
>
> "It is characteristic of the information processing system that it systematically filters out certain kinds of data so that these never reach the men who depend on the system..... It filters out all sensory impressions not readily expressed in words and numbers. It filters out emotion, feeling, sentiment, mood and almost all of the irrational nuances of human situations. It filters out those intuitive judgments that are just below the level of consciousness.
>
> "So that the picture of reality that sifts to the top of our great organizations and our society is sometimes a dangerous mismatch with the real world.....

v.

> "That is why every top executive and every analyst sitting at the center of a communications network should periodically emerge from his world of abstractions and take a long unflinching look at unprocessed reality."

One outcome of the ESS program, it is hoped, is a greater appreciation of the importance of evaluation in educational programs--an emphasis on "what works" and how it might be stimulated elsewhere through appropriate Federal actions.

ESS's goal, in short, is to enable its participants to be generally more effective in their professional staff duties and of greater service to the Congress and the Executive Branch in the development and enactment of sound educational policies.

PARTICIPANTS

ESS participants are varied in their political affiliations and persuasions; they are Republicans, Democrats, and independents. The major criterion for participation in ESS activities is occupational: the individual must perform in a Federal professional staff role involving the development or implementation of Federal policy in the field of education. Hence, ESS activities typically bring together Federal aides from four areas:

Congressional: Majority and minority counsels and professional staff members of the Senate Committee on Labor and Public Welfare, the House Committee on Education and Labor, the House and Senate Committees on Appropriations; as well as legislative assistants to Members of the House and Senate who serve on the Congressional committees on education. In addition, professional staff of the Congressional Research Service, and the General Accounting Office.

Executive Offices: Professionals from the Office of Management and Budget (Human Resources Programs Division, Office of Legislative Reference, Office of Program Coordination, Federal Executive Board Secretariat) and special assistants to the President.

Departments: The Secretary and Assistant Secretaries of HEW, Commissioner of Education, Director of the National Institute of Education, Deputy Assistant Secretaries for program planning and evaluation, legislation, budget, research, and intradepartmental educational affairs. In addition, senior program specialists, public information officers, special assistants to bureau chiefs, etc.

Agencies: Professional staff members of other Federal education agencies: National Science Foundation, Office of Economic Opportunity, National Endowment for the Humanities, Smithsonian Institution, etc.

ACTIVITIES

ESS activities generally take the form of either dinner-discussion meetings with prominent personalities in the field of education or site visits to notable educational programs.

"Travelling seminars" typically consist of 15-25 senior, bipartisan staff members from Congress and the Executive departments whose primary responsibilities are for the development and implementation of Federal educational policy. Dinner meetings serve a wider spectrum of educational staff personnel drawn from Capitol Hill and various Federal agencies.

The general format of ESS activities is as follows:

A. ESS participants obtain the written approval and/or encouragement of their congressional or agency principals. (ESS has been endorsed by Senators and Representatives of both political parties, as well as Executive Branch agency heads.)

B. ESS participants suggest an agenda of educational topics (e.g. "preschool," "disadvantaged," "educational technology"). The ESS project staff, in cooperation with an outside consultant-expert in the particular topic or locale, then plans the site visit to worthwhile educational programs and makes the necessary logistical arrangements.

C. The group travels together, sometimes under the leadership of the outside consultant, in short trips from Washington to educational projects. (Eighten trips during the course of a calendar year are planned in accordance with the congressional workload and the budgetary cycle.) In the field, ESS participants view and discuss educational operations with persons they would not normally meet in Washington (e.g. classroom teachers, community leaders, administrators, researchers, students, parents, etc.).

SPONSORSHIP AND CONTROL

Educational Staff Seminar commenced operations in February 1969 and is one of a series of leadership development programs of The George Washington University's Institute for Educational Leadership. ESS is funded by a grant to the Institute from The Ford Foundation and by a contract for partial reimbursement of training expenses from the U.S. Office of Education, the Department of Health, Education, and Welfare, and the Office of Economic Opportunity.

A Steering Committee for ESS, composed of participants representing various agency affiliations, meets regularly to give advice and counsel to the program.

ESS's Director is Dr. Samuel Halperin, formerly a college professor of political science, Assistant U.S. Commissioner of Education for Legislation, and Deputy Assistant Secretary of Health, Education, and Welfare. Assistant Director Jonathan Brown has worked with Federal educational policy as an assistant to a U.S. Representative and a U.S. Senator. ESS's Administrative Officer is Ms. Dietra Rogers. Its Administrative Assistant is Ms. Ann Hymes.

--February 1973

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APPENDIX IV

1973 PROGRAMS - JANUARY - JUNE*

170) January 10-12 : Field Trip: Educational Technology Experiment-Communications Satellite of the Federation of Rocky Mountain States; The Education Commission of the States, Denver, Colorado

171) January 17 : Dinner-Discussion Meeting: "Field Trip: Education in the U.S.S.R.," with observations and a recap by trip participants, November 16-30, 1972

172) January 22 : Dinner-Discussion Meeting: "Some Alternative Roles For the Federal Government in School Finance Reform," with H. Reed Saunders, Director, Task Force on School Finance, Department of Health, Education and Welfare

173) January 24 : Seminar: "The Federal Role in the Education of Handicapped Children," including tours of the Kendall School for Deaf Children and the Model Secondary School for the Deaf, Gallaudet College; meetings with Jasper Harvey, Director of Special Education, University of Texas; John Melcher, Director, Bureau of Handicapped Children, State of Wisconsin; and Jerry Davis, Associate Superintendent of Schools, Baltimore County, Maryland (Part IV of a series)

174) January 30 : Dinner-Discussion Meeting: "Schools Do Make a Difference," with James W. Guthrie, School of Education, University of California, Berkeley

175) February 15-16 : Field Trip: The Fashion Institute of Technology and the College for Human Services, New York City

176) February 20 : Film Preview: "WattStax," documentary film of the Watts Seventh Annual Festival

177) February 23 : Luncheon-Discussion Meeting: "The Freedom To Learn," with Carl R. Rogers, Center for Studies of the Person

178) February 25-28 : Annual Meeting of the American Educational Research Association, New Orleans (invitations and panels arranged for ESS participants)

179) March 8 : Dinner-Discussion Meeting: "Report of a Field Trip: Education in Japan," with observations and a recap by trip participants, December 3-20, 1972.

*A listing of ESS' 169 earlier programs may be obtained from the ESS office.

180) March 9 : Conference: "Fraud in the Schools: Court Challenge to Accountability," with presentations by Haskell C. Freedman, Judge of Probate Court, East Cambridge, Massachusetts, Thomas F. Green, Director, Educational Policy Research Center, Syracuse, New York, Harry Hogan, Director, Government Relations, The Catholic University of America, Susanne Martinez, Attorney for the Plaintiff, Youth Law Center, San Francisco, California, and Frederick McDonald, Director, Division of Educational Studies, Educational Testing Service, Princeton, New Jersey (co-sponsored by the Educational Policy Research Center, Syracuse University Research Corporation, Syracuse, New York and the Lawyers Committee for Civil Rights Under Law)

181) March 15 : Dinner-Discussion Meeting: "State Legislatures: Are They Capable of Governing? ", with Alan Rosenthal, Professor of Political Science, Rutgers University, and Director, Center for State Legislative Research and Service, Eagleton Institute of Politics

182) March 22 : Luncheon-Discussion Meeting: "Education of Gifted and Talented Children," with Dan Bitan, Director, Department for Gifted Children, Ministry of Education and Culture, State of Israel

183) March 22 : Dinner-Discussion Meeting: "Federal Categorical Programs: Large, Medium, or Small?", with Wilbur J. Cohen, Dean, School of Education, University of Michigan, Ann Arbor

184) March 26 : Dinner-Discussion Meeting: "Alternative Strategies for the Federal Government: Some Choices in the FY 1974 Budget," with Alice M. Rivlin, Senior Fellow, The Brookings Institution

185) April 4-6 : Field Trip: Three Chicano Communities in Ventura and Los Angeles Counties, California, visits to migrant programs, schools, community centers, public services, meetings with parents and community leaders, etc.

186) April 9-13 : University of Massachusetts (Amherst) Spring Educational Marathon: "Educational Alternatives," including workshops, lectures, seminars, films, demonstration projects (invitations arranged for ESS)

187) April 10 : Dinner-Discussion Meeting: "Work in America," a report on the HEW Task Force Report, with James O'Toole, Director of the APEX Workshop on Work, Education and the Quality of Life, The Aspen Institute, and former Chairman of the HEW Task Force on Work in

America; Harold Wool, Economist, National Planning Association; Byron Calame, Labor Writer, Wall Street Journal

188) April 11-13 : Field Trip: Oklahoma State Tech, Okmulgee

189) April 16 : Luncheon-Discussion Meeting: "Inequality: What Does It Really Say? What Are Its Policy Implications?", with Christopher S. Jencks, Harvard Graduate School of Education and Center for the Study of Public Policy, Cambridge, and author, Inequality

190) April 17 : Dinner-Discussion Meeting: "Prison: Rehabilitation or Revenge?", with Eddie Harrison, author, No Time For Dying

191) April 18 : Luncheon-Discussion Meeting: "Recent Trends Toward State Programming in Early Childhood," with Milton E. Akers, Director, Office of Early Childhood Development, State of Florida and Associate, Institute for Educational Leadership, The George Washington University

192) April 24 : Dinner-Discussion Meeting: "White Governance and Black Political Power in Gary Indiana," with Jessie Bell, Rockefeller Foundation Fellow (former City Controller of Gary), George Crile, former reporter, Gary Post-Tribune, Jim Gibson, Potomac Institute (former consultant to Mayor Richard Hatcher)

193) April 26 : Demonstration: Project S.E.E.D. (Special Elementary Education for the Disadvantaged), by William Johntz, Project Director, at the Smithsonian Institution

194) May 2 : Dinner-Discussion Meeting: "The Worker Renewal Strategy," with Herbert Striner, author, Continuing Education as a National Capital Investment, Charles Holt, Economist, The Urban Institute, Dave O'Neill, Director of Human Resources, American Enterprise Institute for Public Policy Research (Part II of a series)

195) May 10-11 : Field Trip: Education of the Handicapped in DeKalb County, Georgia

196) May 15 : Dinner-Discussion Meeting: "The Promise of Cable Television," with Theodora Sklover, Open Channel, New York City (cosponsored with House Select Subcommittee on Education and guests

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197) May 17 : Dinner-Discussion Meeting: "Education of Gifted, Talented and Creative Children," with James Gallagher, Director, Frank Porter Graham Child Development Center, Chapel Hill, North Carolina

198) May 17-18 : Field Trip: Center for Vocational-Technical Education, Columbus, Ohio; Springfield and Clark County Joint Vocational School; Clark Technical College

199) May 23-25 : Field Trip: "Synanon: A Social Experiment," visits to four Synanon centers in San Francisco, Oakland, and Marshall, California (with Federal drug abuse prevention and rehabilitation officials)

200) June 6 : Demonstration-Discussion Meeting: PLATO IV - Programmed Logic for Automatic Teaching Operations, Fourth Generation (a joint program of ESS and the Federal Interagency Committee on Education - FICE)

201) June 7-8 : Field Trip: Programs for Gifted and Exceptional Children in Philadelphia, Pennsylvania, including visits to Franklin House - Neighborhood Education and Counseling Center, Olney School for Human Concerns, Samson Friedman School of Human Sciences, Conwell Middle Magnet School, and the Hahneman Medical College and Hospital